

**ARTIFICIAL INTELLIGENCE (AI) IN LANGUAGE LEARNING
(ENGLISH AND ARABIC CLASS): STUDENTS' AND TEACHERS'
EXPERIENCE AND PERCEPTIONS**

Deni Yatri^{1*}, Mirjam Anugerahwati², Lestari Setyowati³

¹⁻³English Department, Universitas Negeri Malang, Indonesia

E-mail: ¹⁾ deni.yatri.2302218@students.um.ac.id

Abstract

This study explores the integration of Artificial Intelligence (AI) in language learning within English and Arabic classes. The research involved 18 participants, encompassing learners and teachers of both languages. It aims to understand their experiences, perceptions, and challenges when incorporating AI into language education. Learners demonstrated diverse use of AI tools such as Chat GPT, Grammarly, and Elsa, leveraging them for various language learning aspects including writing enhancement, speaking practice, and translation. While English learners extensively employed multiple AI tools, Arabic learners primarily relied on Chat GPT for scientific paper writing, with limited exploration of other available AI variations. Participants generally viewed AI integration positively, recognizing its facilitative role in learning, yet raised concerns about potential over-reliance, plagiarism risks, reduced creativity, and inaccuracies. Teachers relied on Grammarly for grammar correction and Chat GPT for language tasks, emphasizing the need for human validation to ensure contextual accuracy despite acknowledging AI benefits. Challenges identified included limited access due to premium features, connectivity issues, and ethical concerns surrounding AI-generated content. The study emphasizes AI's significance as a valuable aid in language education while cautioning against excessive reliance. It highlights the necessity for human intervention to validate AI-generated content, stressing critical thinking and a balanced approach to leverage AI's advantages while mitigating its potential drawbacks.

Keywords: Artificial Intelligence (AI), Language Learning, Perceptions and Experiences, Challenges Educational Technology

1. INTRODUCTION

In the 21st century, modern education has seen a significant shift towards technology integration in learning including the use of Artificial Intelligence (AI) in English and Arabic language classrooms. Besides English, Arabic is one of the international languages (Mustafawi et al., 2022) Arabic is one part of a foreign language that is one of the subjects taught in Indonesia (Kusaiyin, 2020).

AI offers truly innovative solutions that transform the experience of students and teachers. The advantages of using AI as a tool in Language Learning are undeniable. AI's integration into English and Arabic instruction has not only improved individual learning but also transformed traditional teaching methods. It can suggest tailored learning materials, curate content, and even provide automated grading for written assignments, reducing the administrative workload for teachers. It leads to easy, efficient, and innovative ones. Consequently, teachers must possess sufficient digital competence to

master technologies and integrate them into their learning and teaching processes (Hatlevik et al., 2018).

In unusual circumstances like the COVID-19 outbreak, online language learning is extremely valuable. The way teachers deliver instruction and how students absorb information in the classroom has been altered by the COVID-19 outbreak (Andreani et al., 2021). There is a need for further research on AI that supports online language learning. AI illustrates that learning today is not limited by space and time. This means that in the educational paradigm, education emphasizes student activity (student-centered learning), where students must actively explore information based on tools and media they can use independently.

In addition, regarding accessibility and inclusivity, AI can assist learners with special needs by providing tailored support, such as text-to-speech functionality, aiding those with hearing impairments. Students with special needs benefit from AI (Karsenti, 2019). Different systems powered by AI can provide support for students with special needs, for example, virtual reality and augmented reality robotics that can facilitate both participation and learning (Vincent-Lancrin & Van der Vlies, 2020).

Radwan (2017) indicates that AI can be used to overcome many of the difficulties of teaching/learning English. For instance: an AI application called Elsa improves speaking skills (Hynes, 2016). AI such as Google and Grammarly can help people to increase writing. Language teaching strategy that is enhanced by technology, leading to an improvement in students' writing skills (Ivone et al., 2020) Google and Grammarly save millions of embarrassing mistakes caused by carelessness (Marr, 2018). There is significant correlation between students' AI and the achievement of English reading skills (Lestari et al., 2021). Furthermore, AI Chatbot is capable of providing instant feedback, which is crucial for effective language learning. Learners receive information about their mistakes immediately after completing an exercise. This quick feedback not only helps learners correct errors but also reinforces the correct usage of language constructs.

In addition, Arabic language learning with the help of Chat GPT can be an engaging and effective experience. Chat GPT, can act as an interactive and responsive learning partner in enriching Arabic language knowledge and skills (Zhang et al., 2021). With an integrated and balanced approach, automated learning technologies such as Chat GPT can be a valuable tool in supporting and enhancing the Arabic language learning process in higher education (Avisyah et al., 2023). The use of Chat GPT in Arabic language learning in higher education offers great opportunities to enhance students' learning experience. (Ramadhan et al., 2023).

Chat can be used as a tool to practice speaking in Arabic (Marie-Sainte et al., 2018). In the context of language learning. It is essential to consider how to responsibly and ethically use this AI as a professional to enhance work rather than abuse it. Artificial intelligence has the potential to revolutionize the way of learning and teaching and methods in the learning process in the world of education. The teacher's role is essential in leading and using AI. It is responsible for determining how to use it honestly, with integrity and transparency, and agree on some rules of engagement. Thus, the world of education needs to discuss the use of AI

AI has the potential to bridge educational gaps. AI has ushered in a new era of language learning, making it more efficient, inclusive, and engaging. The future of English and Arabic instruction is intricately tied to the potential of artificial intelligence,

and as technology continues to evolve, AI will play an even more prominent role in shaping the way we teach and learn languages. By fostering language skills alongside AI, this integration presents a pioneering pathway to holistic language education.

Expanding on the importance of technology integration in language learning, there remains limited research that looks into students' and teachers' perceptions and experiences about AI integrations, specifically Artificial Intelligence (AI) in Language Learning (English and Arabic Classes). Looking at the previous research, the AI most commonly used in Arabic classes is Chat GPT AI. Is there any other AI that is integrated as much as in English class? This study aims to explore students' and teachers' perceptions and experiences of AI integration in language learning especially in English and Arabic classes. To address this gap, the primary question of this study emerges:

RQ1: What are students' experiences and perceptions of AI integration in language learning (English and Arabic Classes)?

RQ2: What are teachers' experiences and perceptions of AI integration in language learning (English and Arabic Classes)?

RQ3: What challenges do students and teachers encounter when incorporating AI in language learning (English and Arabic Classes) into their educational practices?

This is important for several reasons. First, it provides valuable insights from students' and teacher's direct experiences, helping us understand how well AI integration in language meets students' needs, preferences, and challenges. Second, students' and teachers' perceptions can either support or hinder the integration of AI in language learning. Lastly, their perspectives contribute to the ongoing ethical discussions about AI. By exploring student and teacher views on AI integration, this research aims to develop practical applications of the technology that align with learning goals, thus improving its use in English and Arabic language learning.

2. RESEARCH METHODS

2.1. Participants

The study involved 18 participants (11 English learner, 2 Arabic Learners, 2 English teachers, and 3 Arabic teachers) Each participant provided informed consent at the time of enrollment.

2.2. Research Design

This research employed a descriptive qualitative design intending to describe a phenomenon and its characteristics. Descriptive qualitative research attempts to study language learning and teaching in naturally occurring settings without any intervention or manipulation of variables (Nassaji, 2015).

2.3. Data collection

The data collection technique used in this research is questionnaires. The questionnaire is a research data collection technique used to collect data from respondents in the form of written questions (Gangrade, 1982). Questionnaires contain a series of questions or statements that must be answered by respondents. These questions or statements can be open (respondents provide answers freely) or closed (respondents

choose answers from the options provided). The data source was a questionnaire administered in a Google Form, aiming to find out students' opinions about AI integration in language learning. The questionnaire was responded to voluntarily by 18 participants. The questionnaire consisted of 12 items (3 closed-ended questions, 9 open-ended questions). Data were collected in Bahasa Indonesia. The blueprint of the open-ended questionnaire, distributed to all participants via Google Form, was designed based on Shoufan's (2023) model, consisting of seven dimensions: opinion, usability, frequency, influence, experience, challenges, and plans.

2.4. Data analysis

Since the questionnaire of this research was closed and open-ended questions, the data will be analyzed quantitatively and qualitatively including exploring participants' opinions, perspectives, and attitudes through thematic analysis. Thematic analysis is an approach characterized by a focus on the reliability of coding (Terry et al., 2017).

3. RESULTS AND DISCUSSION

The findings of the study will be delineated under two central themes, that is: students' experience and perceptions of AI integration in English and Arabic classes, teachers' experiences and perceptions of AI integration in English and Arabic classes, and challenges students and teachers encounter when incorporating the AI in language learning (English and Arabic classes).

3.1. Students' experience and perceptions of AI integration in English and Arabic classes

Extract 1

"Chat GPT for brainstorming ideas, Chat GPT for overview guidance, Chat GPT for writing practice and translation.", "Grammarly for proofreading writing results (Crosscheck)", "Elsa for learning speaking", "Humata for extracting PDFs", "MyTape for transcribing interview results, and others", "Google Translate for translating sentences", "Perplexity for overview guidance", "Quillbot for paraphrasing and vocabulary practice"

Extract 1 Shows the kind of AI used in Language Learning by English learner. English students use AI as Learning Tools to Support Language learning. For example, in term of writing Enhancement, including writing scientific paper, Chat GPT utilized for brainstorming ideas, practicing writing, translation, and generating content. QuillBot is assisting in paraphrasing and vocabulary enhancement and Grammarly Mainly used for grammar correction and proofreading. Moreover, Humata was used to extract information from PDFs, possibly for study or research purposes. MyTape sed is for transcribing interview results, aiding in content generation or research. Google Translate is for translating sentences. Perplexity: Utilized for overview guidance and possibly information retrieval. In addition, Elsa mentioned for learning speaking skills. This in line with previous research, an AI application called ELSA improves speaking skills (Hynes, 2016). AI such as Google and Grammarly can help people to increase writing (Marr,

2018). In this case, we have known that besides Chat GPT AI, there are lots of AI used by English learner in their English language learning.

Extract 2

"Chat GPT to seek an outline for working on scientific writing."

Extract 2 highlights the use of Chat GPT, an AI tool, among Arabic learners for assisting in scientific paper writing. Chat GPT is utilized specifically for generating outlines or getting an overview for working on scientific or academic writing projects. Notably, Arabic learners exclusively rely on Chat GPT without exploring other AI variations in language learning, similar to previous research emphasizing Chat GPT as the primary AI utilized. Chat GPT can be a valuable tool in supporting and enhancing the Arabic language learning process in higher education (Avisyah et al., 2023). The use of Chat GPT in Arabic language learning in higher education offers great opportunities to enhance students' learning experience (Ramadhan et al., 2023). The difference is only on the usage of the chat GPT. In this case, Arabic learners use AI to work on scientific papers.

Looking for this reality, the best suggestion and the ideal recommendation for Arabic learners is to explore diverse AI tools tailored to their needs in Arabic language learning, much like in English classes. Regarding to the frequency of using, there are 7 participants who often use AI and 11 participants who still use AI infrequently. Below are the percentages.

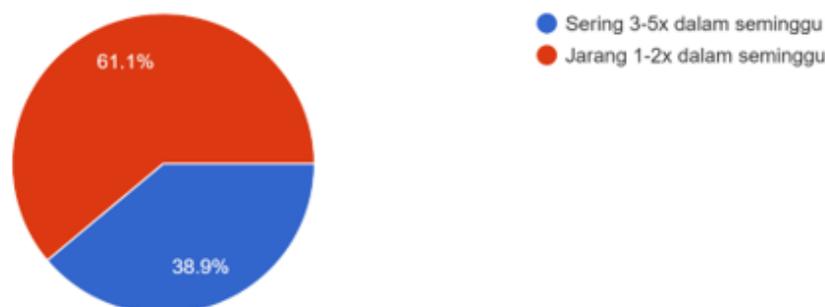


Figure 1. Frequency of Using AI

Extract 3

"AI is quite helpful in language learning, but some aspects cannot be entirely entrusted to AI. For instance, in translation, context plays an important role in vocabulary usage, and only humans can understand and analyze that context.", "Quite helpful in the student learning system", "AI is quite helpful in language learning, but there are aspects that cannot be entirely entrusted to AI. For instance, in translation, context plays an important role in vocabulary usage, and only humans can understand and analyze that context", "AI is very helpful in language learning, but excessive reliance on AI can lead to a decline in students' creativity.

Extract 3 highlights that in terms of students' responses or opinions to AI Integration in language learning, both the English and Arabic classes have positive opinions of AI integration in language learning. The use of technology has a positive impact on learners' motivation in language learning (Aysu, 2020). AI's integration within the learning system has a beneficial impact, likely providing resources or tools that enhance the learning process for students. AI is a facilitative tool that aids learning, acknowledging its role in improving the learning experience such as idea generation, understanding AI-generated responses, facilitating the learning process, and helping rectify errors, particularly in writing, where speed might lead to mistakes. The assistance of AI tools, such as Chat GPT, contributed to the improvement of textual quality (Yan, 2023). However, there should be recognition of AI's Limitations. While appreciating AI's contributions, there are AI limitations, especially in nuanced tasks like translation, where understanding context and vocabulary usage still requires human comprehension and analysis in terms of cross-checking.

Extract 4

"Clear and specific instructions", "Although AI is very helpful, we shouldn't rely on it too much; we need to be prudent. The use of AI is only as an assistant that aids in tasks or work. Beyond that, we should continue to utilize our thoughts and check for any shortcomings that might arise from AI", "Sometimes, when we use AI excessively, the quality of the task results becomes less original", and "Continuing to cross-check the results provided by AI", "Using it only to add information, not to complete tasks"

Extract 4 highlights something to be aware in integrating AI in language learning in terms of giving clear instructions, using AI smartly, not depending too much on AI, and rechecking AI's work. Giving clear and specific instructions is important to operate AI. It helps in understanding what needs to be done. We need to think about how much we use AI. If we use it too much, our work might not be as good or original. AI helps us learn, but we shouldn't rely on it too much. We should learn things ourselves and not just depend on AI. We should check if those answers are right or not. We need to be sure that we can trust what AI says. We must be careful and use it wisely. These all, in line that AI might reduce focus on developing critical thinking and problem-solving skills (Evans & Liontas, 2020) limiting their creativity and originality in writing (Cao & Chong, 2020). Overreliance on AI-generated text can hinder learners' independent thinking and expression.

Extract 5

"Time efficiency and task effectiveness. Helps in developing learning and optimizing time", "Facilitates achieving learning goals. Assists educators and learners in understanding teaching materials. Increases learning motivation due to its ease", "Being an assistant ready anytime and anywhere", "My writing has become better.", "Helps students solve problems or issues when working on assignments"

Extract 5 highlights the positive influence of AI integration in language learning in terms of Efficiency and Effectiveness, Accessibility and Availability, and Learning Support. AI tools assist students in addressing challenges or complexities encountered

while working on tasks, leading to improved learning outcomes and successful completion of assignments. Using AI is the same as having an assistant available anytime and anywhere. Using AI improves the overall efficiency of learning processes. It is in line, AI ability to identify grammar and vocabulary errors can help learners enhance their language accuracy (Wang et al., 2021).

Extract 6

“It could lead to over-reliance”, “Dependency on AI could occur, potentially increasing plagiarism due to reliance on AI”, “Reduction in critical thinking and student creativity.”, “Occasional mismatch in vocabulary.”, “A decrease in students' motivation to complete assignments.”

Extract 6 highlights the negative influence of AI integration in language learning in terms of Dependency and Laziness, Plagiarism and Over-Reliance, Reduction in Creativity and Thinking Skills, lack of Accuracy as the limitations of AI. The statement about decreased student motivation in completing assignments highlights how this technological dependency affects education. The negative implications of GPT Chat for students using this system to do assignments (Hutson et al., 2022). It suggests that reliance on technology might lead to reduced enthusiasm or dedication among students to actively engage in and complete academic tasks. AI tools may sometimes present inaccuracies, prompting the need for cross-checking, especially in paraphrasing to avoid unintentional plagiarism or errors in grammar-checking tools that may not adhere to grammatical rules accurately. It's important to recognize the limitations of AI and technology, considering them as complementary tools. Moreover, over-reliance on AI tools could lead to increased plagiarism and over-dependence, reducing students' critical thinking and creativity. Learners may adopt the AI's suggestions without considering their own unique voice (Evans & Lontas, 2020). There's a risk of diminished creativity and idealism among students. AI dependence may decrease creative thinking and diminish students' ability to critically analyze data, leading to limitations in vocabulary and potential laziness.

3.2. Teachers' experiences and perceptions of AI integration in English and Arabic classes

Extract 7

“Grammarly for correcting grammar” “GPT, for preparing materials when feeling too lazy to type” “Chat GPT for translation and reading. Google Translate for translation” “ChatGPT for finding ideas for lesson plans”

Extract 7 shows the kind of AI used in Language Learning by English and Arabic teachers. Grammarly is Primarily utilized by an English teacher for correcting grammar, emphasizing its role in language instruction and ensuring accurate language usage. Grammar is an important tool to convey meaning (content) (Cahyono et al., 2016). Chat GPT is used by the same English teacher for material preparation when typing feels burdensome, highlighting its role in easing content creation. On the other hand, Chat GPT is used for various language-related tasks like translation, reading, and idea generation

specifically by an Arabic language teacher. Chat GPT is employed for translation tasks, reading activities, and also for brainstorming lesson plan ideas. The potential of AI to improve education by automating various aspects of teaching (e.g., administrative tasks, assessment, evaluation), personalizing learning (e.g., intelligent tutoring systems), and making available new tools (e.g., virtual reality, augmented reality) (Miao et al., 2021). In addition, Google Translate is also utilized for translation purposes.

Extract 8

“Very helpful because it's efficient and easy to use anywhere and anytime, provided there's an internet connection”, “Quite helpful, but shouldn't rely solely on it; it should be cross-checked thoroughly”, “Very helpful, but Grammarly needs double-checking because, in my opinion, the application cannot read the context of the text.”

Extract 8 highlights that in terms of students' responses or opinions to AI Integration in language learning, both the English and Arabic classes have positive opinions of AI integration in language learning. There is value in human interpretation as the acknowledgment of AI limitations and highlights the irreplaceable role of human understanding, particularly in grasping the contextual nuances that AI might overlook. The recommendation for thorough cross-checking despite AI assistance signifies the importance of humans. Why? Because the text created by ChatGPT can be inconsistent (Kohnke et al., 2023). So that verification and validation ensure accuracy and completeness in language-related tasks should be done. It highlights the efficiency and convenience of AI tools in language learning. The ease of use, coupled with the flexibility to access AI anywhere with an internet connection, is noted as a significant advantage.

Extract 9

“Grammar and everything else must be rechecked”, “Time efficiency”, “Causing laziness”, “AI is perceived as a facilitator for achieving learning goals, assisting both educators and learner”

Extract 9 highlights something to be aware of in integrating AI in language learning, the positive influence of AI integration in language learning, and the negative influence of AI integration in language. Something that have to keep in mind is checking AI's work: after AI does something for us, we should check if it's correct. AI and NLP technologies, such as Chat GPT, can also be subject to bias, impacting their effectiveness and fairness (Mehrabi et al., 2021). AI Facilitates achieving learning goals. Assists educators and learners in understanding teaching material. However, the dependency of AI potentially fosters laziness in pursuing knowledge based on personal abilities.

3.3. Challenges students and teachers encounter when incorporating AI

Extract 10

“There haven't been significant challenges. Perhaps, there's limited access due to premium features.”, “Sometimes, feedback might not match the context and errors might occur due to unstable internet connections.”, “One common issue I encounter is plagiarism resulting from AI-paraphrased content, and sometimes, the paraphrased words

are challenging to comprehend due to unfamiliar vocabulary." "So far, the challenge lies in self-control in using it reasonably", "Device availability (infrastructure and facilities). The disparity in understanding between teachers and students (especially in teaching lower education levels like elementary school)"

Extract 10 highlights some Challenges in AI Integration. There is limited access due to premium features. However, the primary challenge seems to revolve around internet connectivity. Then, the common issue of plagiarism arising from AI-paraphrased content highlights ethical concerns. Additionally, the difficulty in comprehending paraphrased words due to unfamiliar vocabulary signifies the impact of AI-generated content on comprehension and understanding. The acknowledgment of the challenge lying in exercising self-control in AI usage. In addition, device availability and infrastructure limitations are the challenges. The lack of access can hinder the integration of technology into the learning process.

Extract 11

"Starting by providing understanding, knowledge, and proficiency in using AI as a medium, then increasing practice.", "When using Grammarly, I strive to correct its errors on my own.", "Preparing an adequate internet connection", "Managing phone usage.", "Manually improving by discussing or asking professors.

Extract 11 highlights some ways to settle challenges in AI integration. There's a clear emphasis on progression through practice. After understanding AI, the next step is to enhance skills and competence through consistent practice. Teachers are expected to have competence in artificial intelligence systems (Lindner et al., 2019). Instead of blindly accepting Grammarly's suggestions, we have to engage critically, evaluate and refine the suggestions based on our understanding and judgment. Then, we have to do good preparation like ensuring a stable internet connection. There are highlights the importance of self-reflection concerning the negative of AI over usage because the best motivation is from internal motivation. Then, it is importance of seeking improvement and learning through manual efforts, such as discussions with professors, indicating a proactive approach to skill enhancement.

Extract 12

"Because AI is extremely helpful." "Because the use of AI can reduce our reading habits towards books"

Extract 12 highlights the reasons why students will use or will not use AI in their Language Teaching and Learning in the future. Five teachers and Twelve students have a plan to still use AI but one student decided to will not use it. Below are the percentages

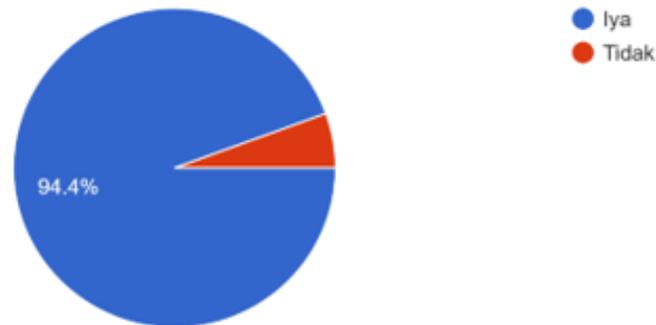


Figure 2. Future Plan of Using AI in Language Learning

The mention of AI reducing reading habits toward books highlights a potential downside of AI reliance. On the other hand, it emphasizes the need for AI to stay relevant and competitive in modern educational and professional landscapes. AI has the ability for task completion and efficiency due to limitations in human capabilities. So, it is important to understand and navigate the balance between leveraging AI's advantages and being cautious about its potential shortcomings.

4. CONCLUSION

The integration of Artificial Intelligence (AI) in language learning has shown remarkable potential, offering diverse tools like Chat GPT, Grammarly, and Google Translate that aid both students and teachers in various language-related tasks. Despite the advantages, challenges persist, including the need for ethical usage, the risk of over-dependency, and the importance of cross-checking AI-generated content for accuracy. Students and teachers acknowledge the benefits of AI but also emphasize the limitations, particularly in nuanced tasks like translation that require human comprehension. Challenges in AI integration encompass issues related to internet connectivity, potential plagiarism, and the need for self-control in AI usage. Solutions involve fostering understanding and proficiency in AI, improving through practice, and maintaining a balance between AI reliance and manual learning efforts. The future of language learning depends on harnessing AI's strengths while being mindful of its limitations and ethical implications.

REFERENCES

- Andreani, S., Muniroh, S., Suharyadi, S., Astuti, U. P., & Yulizar, Y. (2021). The contribution of genre awareness and reading habits towards students' reading comprehension. *Indonesian Journal of Applied Linguistics*, 11(2), 463–476.
- Avisyah, G. F., Putra, I. J., & Hidayat, S. S. (2023). Open Artificial Intelligence Analysis using ChatGPT Integrated with Telegram Bot. *Jurnal ELTIKOM*, 7(1), 60–66.
- Aysu, S. (2020). The use of technology and its effects on language learning motivation.

- Journal of Language Research*, 4(1), 86–100.
- Cahyono, B. Y., Mukminatien, N., & Amrina, R. (2016). Indonesian students' writing proficiency and their ability in using complex sentences. *International Journal on Studies in English Language and Literature*, 4(9), 22–32.
- Cao, X., & Chong, S. (2020). ChatGPT as a writing tutor: An exploratory study on students' writing experience. *Proceedings of the 28th International Conference on Computers in Education*.
- Evans, S., & Liontas, J. I. (2020). The impact of artificial intelligence on language learning and teaching. In *The TESOL Encyclopedia of English Language Teaching* (pp. 1–8). Wiley.
- Gangrade, K. D. (1982). Methods of data collection: Questionnaire and schedule. *Journal of the Indian Law Institute*, 24(4), 713–722.
- Hatlevik, O. E., Throndsen, I., Loi, M., & Gudmundsdottir, G. B. (2018). Students' ICT self-efficacy and computer and information literacy: Determinants and relationships. *Computers & Education*, 118, 107–119.
- Hutson, J., Jeevanjee, T., Vander Graaf, V., Lively, J., Weber, J., Weir, G., Arnone, K., Carnes, G., Vosevich, K., & Plate, D. (2022). Artificial intelligence and the disruption of higher education: strategies for integrations across disciplines. *Creative Education*, 13(12).
- Hynes, C. (2016). The App Using Artificial Intelligence To Improve English Speaking Skills. *Forbes. Com*, 1–2.
- Ivone, F. M., Jacobs, G. M., & Santosa, M. H. (2020). Information and communication technology to help students create their own books the dialogic way. *Beyond Words*, 8(2), 78–91.
- Karsenti, T. (2019). Artificial Intelligence in Education: The Urgent Need to Prepare Teachers for Tomorrow's Schools. *The University of Montreal*.
- Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *Relc Journal*, 54(2), 537–550.
- Kusaiyin, K. (2020). Implementasi Pembelajaran Bahasa Arab dalam Pendidikan Islam di Indonesia. *MODELING: Jurnal Program Studi PGMI*, 7(1), 86–92.
- Lestari, S., Usadiati, W., & Misrita, M. (2021). The Correlation Between Students' artificial Intelligence And Their English Reading Skills Achievement. *Bahasa: Jurnal Keilmuan Pendidikan Bahasa Dan Sastra Indonesia*, 3(2), 103–111.
- Lindner, A., Romeike, R., Jasute, E., & Pozdniakov, S. (2019). Teachers' perspectives on artificial intelligence. *12th International Conference on Informatics in Schools, "Situation, Evaluation and Perspectives", ISSEP*.
- Marie-Sainte, S. L., Alalyani, N., Alotaibi, S., Ghouzali, S., & Abunadi, I. (2018). Arabic natural language processing and machine learning-based systems. *IEEE Access*, 7, 7011–7020.
- Marr, B. (2018). The key definitions of artificial intelligence (AI) that explain its importance. *Forbes*, 4(02), 2018.
- Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2021). A survey on bias and fairness in machine learning. *ACM Computing Surveys (CSUR)*, 54(6), 1–35.
- Miao, F., Holmes, W., Huang, R., & Zhang, H. (2021). *AI and education: A guidance for*

- policymakers*. Unesco Publishing.
- Mustafawi, E., Shaaban, K., Khwaileh, T., & Ata, K. (2022). Perceptions and attitudes of Qatar University students regarding the utility of arabic and english in communication and education in Qatar. *Language Policy*, 21(1), 75–119.
- Nassaji, H. (2015). Qualitative and descriptive research: Data type versus data analysis. In *Language teaching research* (Vol. 19, Issue 2, pp. 129–132). Sage Publications Sage UK: London, England.
- Radwan, Z. M. (2017). Artificial Intelligence and its impact on development. *ASBAR Council*.
- Ramadhan, F. K., Faris, M. I., Wahyudi, I., & Sulaeman, M. K. (2023). Pemanfaatan Chat GPT dalam dunia pendidikan. *Jurnal Ilmiah Flash*, 9(1), 25–30.
- Shoufan, A. (2023). Exploring students' perceptions of ChatGPT: Thematic analysis and follow-up survey. *IEEE Access*, 11, 38805–38818.
- Vincent-Lancrin, S., & Van der Vlies, R. (2020). *Trustworthy artificial intelligence (AI) in education: Promises and challenges*.
- Wang, Y., Zhu, R., & Qin, J. (2021). Evaluating language models for simulating English conversation writing practice. *Proceedings of the 16th Workshop on Innovative Use of NLP for Building Educational Applications*, 457–464.
- Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. *Education and Information Technologies*, 28(11), 13943–13967.
- Zhang, J., Yu, J., Fu, S., & Tian, X. (2021). Adoption value of deep learning and serological indicators in the screening of atrophic gastritis based on artificial intelligence. *The Journal of Supercomputing*, 77, 8674–8693.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).