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# AI's Functions and Influences Among University Students in Indonesian Context

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**Abstract**

This study explores functions and influences of artificial intelligence (AI) in English language learning among English education and non-English education students. Using semi-structured interviews with 36 students from four universities in Bengkulu, Indonesia, and analyzed through Interpretative Phenomenological Analysis (IPA), the study identifies five key functions of AI: learning booster, flexible learning assistant, personal learning source, virtual teacher, and instant problem solver. Both groups shared similar views on the first three functions, while English education students emphasized AI as a virtual teacher, and non-English education students saw it more as an instant problem solver. Four influence themes emerged: acceleration of English mastery, increased learning motivation, reduced desire for face-to-face conversation, and growing dependency on AI tools. Both groups agreed on the first two, but differed on the latter, English education students noted reduced face-to-face interaction, while non-English education students highlighted dependency on AI. The findings stress the importance of balancing AI use with human interaction to support comprehensive language learning.

Keywords**:** *Artificial Intelligence (AI); Functions, Influences; English Education students; non-English Education students.*

## Introduction

Artificial intelligence (AI) has increasingly become a central tool in education due to its ability to provide individualized, adaptive, and efficient learning experiences. In the context of English language acquisition, AI technologies such as automated assessment tools, intelligent tutoring systems, and virtual assistants offer tailored support to learners based on their proficiency level, learning pace, and specific needs (Rusmiyanto et al., 2023; Wu et al., 2024). These adaptive capabilities particularly benefit students in areas such as vocabulary acquisition, grammar mastery, and pronunciation improvement (Maghsudi et al., 2021; Anis, 2023). With AI,

learners are empowered to concentrate on their areas of weakness and proceed through the learning process at their own speed.

One of the major attractions of AI technologies is their ability to provide immediate feedback. Instantaneous responses on spoken and written language tasks allow students to identify and correct their mistakes quickly, accelerating the processes of language acquisition and retention (Wei, 2023; Edmett et al., 2023). In addition, AI tools offer flexibility and convenience, particularly in self-directed and remote learning environments, which many students highly value. These features collectively enhance learner engagement, making AI a compelling option for those striving to improve their language skills.

Beyond flexibility and feedback, AI also caters to learners' desires for practicing conversational English in low-pressure environments. AI-powered chatbots allow students to simulate real-life conversations without the anxiety of face-to-face communication, helping build confidence and fluency in a safe and supportive context (Stoimcheva-Kolarska, 2020; Kumar et al., 2022; Myhre et al., 2023). Furthermore, the efficiency of AI-driven learning is a strong motivator for many students, especially those managing busy schedules. Automating repetitive exercises such as vocabulary drills, pronunciation checks, and grammar corrections helps them optimize their study time (Arini et al., 2022; Sumakul et al., 2022; Song & Song, 2023; Al-Shidi, 2024).

Students studying English, particularly in higher education, utilize a range of AI tools to enhance their learning. Language learning platforms such as Duolingo and Rosetta Stone offer lessons customized through AI algorithms that adjust to student performance (Bhutoria, 2022; Hartono et al., 2023; Yugandhar & Rao, 2024). These systems enable learners to focus on specific areas like grammar, vocabulary, or pronunciation based on their unique challenges and progression (Zhai & Wibowo, 2023). AI translation tools such as Google Translate are also widely used to aid in comprehension tasks, especially for unfamiliar vocabulary and sentence structures (Kolhar & Alameen, 2021; Kim & Cha, 2023; Wang, 2023). These tools complement traditional methods by helping students decode complex language patterns more efficiently (Lameras & Arnab, 2022; Gayed et al., 2022).

Conversely, students from non-English education programs often employ AI for broader academic purposes. Virtual tutors, AI avatars, and content generators like WriteSonic assist with academic writing, task planning, and comprehension

across various disciplines (Chen et al., 2020; Chaudhry & Kazim, 2022; Shu & Xu, 2022). These tools support personalized study routines and generate academic content, aiding students in presentation development and essay writing.

While research highlights many benefits of AI-enhanced learning, including adaptability, feedback, and efficiency, it also reveals potential drawbacks. A major concern is the risk of students becoming overly dependent on AI, which could impede their development of independent problem-solving and critical thinking abilities (Zaman et al., 2024; Zhai et al., 2024). Since AI often prioritizes individualized learning, it may inadvertently reduce opportunities for face-to-face communication and collaboration (Nguyen et al., 2022; Kamalov et al., 2023; Atoi, 2024). This reduced interaction can hinder the growth of soft skills like teamwork and oral communication, which are essential for applying language in real-life scenarios (Almusaed et al., 2023; Calzada, 2024). Another challenge is AI's limited ability to convey cultural and contextual nuances, possibly leading to superficial understanding of language usage in authentic contexts (Zaghlool & Khasawneh, 2023).

For example, when students rely excessively on AI for speaking practice, they may miss opportunities to interact meaningfully with peers. This reliance can limit their engagement in group projects or collaborative learning activities, which are essential for developing holistic language competence (Seo et al., 2021; Donasco, 2024). Teachers must, therefore, ensure that AI serves as a supplement rather than a substitute for interpersonal communication. AI should support the enhancement of language abilities without undermining human interaction (Kim et al., 2022).

Nonetheless, AI technologies continue to support the development of core English skills; listening, speaking, reading, and writing through tools such as speech recognition, automated writing evaluation, and translation software (Suryana et al., 2020; Zhao & Nazir, 2022; Madhavi et al., 2023; Gebregziabher et al., 2024). These tools offer valuable assistance to learners facing difficulty with specific language components. Still, real conversation remains the most effective way to improve communication skills, which underscores the need for balanced use of AI in language education.

Overall, AI use in both English and non-English education reflects a broader trend toward personalized and efficient learning environments. These applications vary based on students' academic focus, but they commonly aim to improve

learning outcomes by providing adaptable support systems (Liang et al., 2023; George, 2023; Borisov & Stoyanova, 2024). It is crucial, however, to examine how these technologies impact specific aspects of academic progress. A deeper analysis of how AI affects skills such as grammar accuracy, conversational fluency, and pronunciation can clarify students' technological dependencies. Comparing AI-driven feedback with traditional teacher input will also provide insight into the relative effectiveness of each method.

In the context of Indonesia and similar educational settings, examining AI's role in supporting or hindering collaborative learning, critical thinking, and authentic language application is essential. This study aims to explore the optimal integration of AI tools in English language learning by balancing technological convenience with the need for human interaction. Such an approach can guide future educational practices to ensure that AI enhances rather than replaces essential language learning experiences. Based on the above narration, this study has three research questions, which are:

1. How do English education program students and non-English education program students function AI in their English learning process?
2. How is the influence of AI usage by English education program students and non-English education program students in their English learning process?
3. How are functions and influences of AI among English education and non-English education students different?

**Research Methodology**

A research technique called interpretative phenomenological analysis (IPA) seeks to understand how people make sense of and interpret their subjective experiences (Willig & Stainton-Rogers, 2017; Smith, 2019). According to MacLeod, (2019), it focuses on comprehending the meaning people give to their ideas, feelings, behaviors, and lived experiences in particular circumstances. Although IPA was first created in the psychology sector, it has since been adopted and used in a number of other fields, such as organizational studies, health sciences, education, sociology, and medical studies (Moss et al., 2019; Emery & Anderman, 2020); (Stolz, 2023).

A small sample size of two to twenty-five is usually used for IPA analysis, which places an emphasis on comprehending the individual viewpoints and experiences

of participants (Cuthbertson et al., 2020; Frechette et al., 2020). This study uses IPA to examine the impact and use of AI on the English language learning process of both English education and non-English education students. Therefore, four institutions situated in Bengkulu city of Indonesia, Universitas Muhammadiyah Bengkulu (UMB), Universitas Islam Negeri Fatmawati (UINFAS), Universitas Bengkulu (UNIB), and Universitas Prof. Dr. Hazairin, SH (UNIHAZ), were the sites of the study. These universities were chosen because they have English education and non-English education students. They are as sample for study assists in exhibiting varied perspective and opinion of the students learning within the universities.

Five students from each branch were approached by the researchers to participate in the study in order to guarantee participant variety. There were 40 students in total; 5 were from each university's English education program and 5 were not. Only those students who are aware of AI for education were chosen to participate. In the beginning, the researchers had intended to conduct the study with all of the individuals who had agreed to participate.

However, after interviewing 36 students, no new information surfaced. Any study's ultimate sample size is determined by the data saturation threshold, beyond which no further information can be discovered. As a result, no more interviews were done, and just 36 study participants made up the final sample. They were 18 from English education students and 18 from non-English education students.

Semi-structured in-depth interviews were used to collect participant data. Throughout the procedure, the researchers placed a high value on participant respect, privacy, and a nonjudgmental attitude. The purpose of the open-ended, probing interview questions was to elicit personal experiences from the students on the chosen research phenomenon. The following queries were used by the researchers to start the interview:

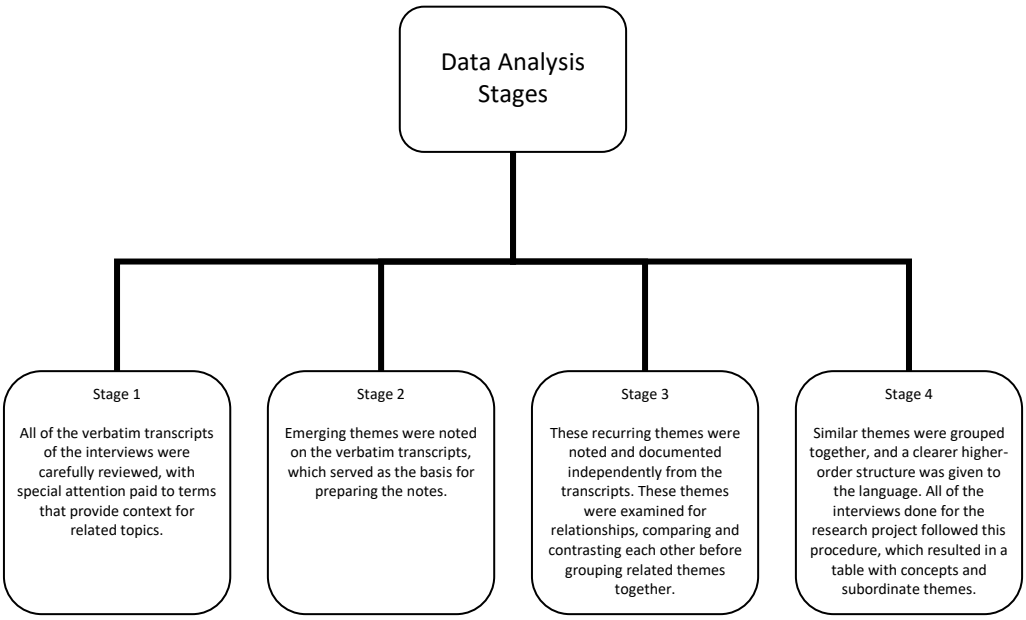
1. In general, how do you now apply AI to your English language learning process?
2. In what ways might AI technology help you manage your learning speed and focus on the areas where you most need to improve?
3. How might AI-powered products help you practice your English?
4. In particular, how can you include AI technologies into your English learning in flexible or remote learning environments?

5. Which language-related tasks or abilities (such as grammar, pronunciation, and vocabulary) do you think AI tools are most useful for your English improvement?
6. In your opinion, how does AI give impact on your English learning?
7. Could you give an example of a time when you received feedback from AI-based technologies that helped you to have a better mastery in English?
8. Do you believe AI makes it easier or harder for you to interact with peers when learning English? Why?
9. How do you feel about employing AI to practice your English abilities and skills? How useful do you think they are?
10. In what ways could AI be more effectively incorporated into your English language learning process?

The interview questions were tested and validated by sixteen students in order to guarantee their validity and dependability. These students' comments and recommendations were taken into consideration when revising the questions. To further check the validity of the constructs, the amended drafts were then distributed to 8 different students who were not part in the first validation procedure. In order to make the interviews as convenient as possible for the research participants, both in-person and online formats (using platforms like MS Teams, Google Meet, or Zoom) were used. Every research subject was questioned for between 45 to 60 minutes on average.

IPA uses an inductive method of data analysis in which researchers interact closely with participants' narratives to find recurrent themes and create an interpretive framework. An IPA study involves multiple steps, such as selecting a sample, gathering data via in-depth interviews, transcribing interview transcripts, and doing thorough data analysis. The process of coding, pattern recognition, and theme creation is employed by researchers to distill the essence of participants' experiences. For the purpose of gathering and evaluating the interview data, the researchers adhered to the suggested four stages given by Smith & Osborn (2008). In addition, to make the data analysis easier, the subjects of interview were coded and numbered as *S1* to *S36*.

**Figure 1.** Data analysis stages




## Findings and Discussion

### Findings

Following the interviews with 36 participants, several themes were identified concerning the function of AI and its influence on both English Education students and non-English Education students. Five overarching themes were identified regarding AI function: *the function as a learning booster, the function as a handy and flexible learning assistant, the function as personal learning sources, the function as a virtual teacher,* and *the function as an instant problem solver*. Both English Education students and non-English Education students had comparable opinions about how AI should be used in the first three functions for their learning processes. They took different approaches to the latter two functions, though. While English Education students saw it as a *virtual teacher*, non-English Education students perceived AI as an *instant problem solver*.

Four themes emerged from the analysis of how AI affected English learning processes in both English education and non-English education students: the *influence on accelerating English mastery, the influence on increasing motivation to learn English, the influence on decreasing the desire for face-to-face English conversation*, and *the influence on dependency on AI-powered tools in learning English*. Both groups experienced the first two themes similarly, but the third and fourth themes were different for them. While English Education students reported *the*

*influence on decreasing desire for face-to-face English conversation,* non-English Education students indicated *the influence on dependency on AI-powered tools in learning English*.

**Functions of AI among English education and non-English education students**

*Theme 1:* ***Function as learning booster***. When it comes to education, a booster is something that acts as a driver or enhancer to help the learning process go more quickly or more effectively. AI is helpful in this situation because it expedites comprehension, makes knowledge easier to access, offers direct assistance, and contributes to the development of a more concentrated and effective learning environment. By enhancing learning outcomes through a more dynamic, personalized, and adaptive approach, AI helps pupils. AI functions as a powerful learning booster by accelerating comprehension, improving access to information, and providing timely support. For English education students, it enables greater independence and enhances language learning efficiency through rapid feedback and adaptive learning resources.

> *I utilize AI as a tool to swiftly acquire feedback on vocabulary and grammar as an English Education student (S2).*
> *I find that AI is a very useful tool for speeding up learning in a variety of subjects, including language. I can be more independent in my studies because of AI's prompt feedback and access to a larger variety of learning resources (S19).*

*Theme 2:* ***Function as a handy and flexible learning assistant***. AI help students study in a practical and flexible learning assistant by offering individualized guidance based on their schedules and interests. Students who have access to instructional resources can study challenging subjects and learn at their own speed. Real-time feedback is provided by tools like virtual tutors, and AI can adjust to different learning styles to give students the help they need. This adaptability enhances the educational process in its entirety. AI serves as a convenient and adaptable learning assistant, offering personalized support that aligns with students' individual schedules, interests, and learning styles. Its flexibility and responsiveness contribute to a more effective and self-paced educational experience.

> *I find AI to be a really useful learning aid. I can study at any moment because of an easy access, and the AI's quick response makes complex ideas easier for me to understand. AI's adaptability fits my learning style, which improves efficiency and enjoyment of the process. Nonetheless, the instructor's function as a mentor and inspirer is still crucial (S5).*

> *AI is a great study assistant, in my opinion. I can learn at my own pace with the resources available to me at any time, and quick feedback helps me fix mistakes. The learning process is more effective because of this flexibility (S23).*

Theme 3: ***Function as personal learning sources***. AI and digital tools serve as personal learning resources by offering instructional information customized to each student's needs and learning style. They give students access to a variety of tools, including interactive classes and tutorials, so they can research subjects on their own. Additionally, by allowing students to review content as needed, these tools promote self-directed learning and improve comprehension and retention. Through customization of the educational process, this tool increases accessibility and adaptability of education. AI acts as a personalized learning source by delivering tailored content, supporting independent study, and enhancing understanding and memory retention. Its ability to adapt to individual learning preferences makes education more accessible, flexible, and student-centered.

> *AI and digital tools are valuable resources for individual learning during the learning process. They help me improve my English understanding by giving me personalized resources and letting me learn on my own. Although this flexibility makes it easier for me to study at any time, the lecturer's comments are still crucial for a deeper comprehension (S13).*

> *Digital and AI tools are particularly beneficial for personal learning sources and material review. I can study more easily because to its flexibility, yet proper understanding still needs the lecturer's direction (S27).*

Theme 4: ***Function as a virtual teacher***. AI works as a virtual teacher, offering students individualized training through lessons, tasks, and evaluations. AI provides immediate feedback, modifies course materials in response to student success, and assists in breaking down complex ideas. AI-powered virtual teachers can adjust to different learning styles and speeds to improve student engagement and comprehension. They are accessible around-the-clock, making learning flexible and accessible. AI functions as a virtual teacher by delivering customized instruction, real-time feedback, and adaptive content based on student progress. Its constant availability and responsiveness enhance engagement, support diverse learning needs, and make education more flexible and inclusive.

> *I think, AI is a great virtual teacher, providing quick feedback and individualized explanations. Because to its flexibility, I can easily learn whenever I want, yet teachers are still necessary to provide students a better knowledge and opportunities for one-on-one engagement (S14).*

Theme 5: ***Function as an instant problem solver***. AI assists students by offering clear answers to inquiries and solutions to academic difficulties instantly. AI is capable of problem analysis, producing detailed explanations, and providing tools or solutions to deal with particular problems. This skill speeds up learning by assisting pupils in overcoming challenges in real time. AI helps students stay focused and keep learning the topic by promptly clearing up any issues or difficulties they may have. This improves their performance and comprehension in the end. AI serves as an instant problem solver by providing quick, clear solutions and explanations to academic challenges. With its real-time support, it helps maintain learning momentum, reduces frustration, and improves overall understanding and academic performance.

> *As a non-English education student, I find AI to be a really helpful instant problem solver. When I have trouble grasping the content, AI offers prompt solutions and concise explanations, which helps me get past difficulties quickly. Nonetheless, face-to-face communication with educators is still crucial for a deeper comprehension (S28).*

**Influences of AI on learning process among English education and non-English education students**

Theme 1: ***influence on accelerating English mastery***. AI is essential for quickening the acquisition of the English language since it offers individualized learning opportunities. Students can learn at their own pace with AI's fast access to grammar drills, vocabulary games, and pronunciation practice. Chatbots and virtual tutors are two ways that AI-based platforms help students practice conversations by adjusting information based on their success. AI speeds up students' progress toward English fluency by assisting them in identifying areas that require development through targeted practice and immediate feedback. AI greatly speeds up learning English by offering immediate feedback and individualized, self-paced instruction. Its adaptive features and focused practice tools enable students to advance more quickly toward fluency and enhance their language proficiency.

> *AI, in my opinion, significantly speeds up the acquisition of the English language. Having quick access to specialized exercises and educational materials enables me to concentrate on my areas of weakness. Chatbots and other interactive elements are great for practicing conversations. I can learn at my own pace thanks to AI's flexibility, but getting help from teachers is still necessary for a deeper comprehension (S15).*

> *I believe that artificial intelligence significantly speeds up my learning process. My learning time become more effective because of having access to*

> *workouts and learning materials, and practicing conversing with AI tools, which I can do everywhere and at any time (S30).*

Theme 2: ***Influence on increasing motivation to learn English***. AI makes learning English more enjoyable by generating interesting and dynamic experiences. Gamified systems incentivize learning by providing achievements and prizes. Personalized learning paths enhance the relevance and enjoyment of the content, while real-time feedback promotes goal-setting and progress tracking. AI technologies' accessibility makes it possible to practice whenever and wherever you choose, which increases motivation and dedication to language learning. Through gamification, tailored learning routes, on-demand accessibility, and captivating content, AI increases motivation to learn English. Some students still need human interaction and direction to sustain long-term motivation and focus, even though these elements increase enjoyment and commitment.

> *AI is a highly powerful tool for increasing motivation to study. While individualized learning paths concentrate on pertinent content, gamified platforms make learning more fun. My motivation to become fluent in English is increased by the flexibility of AI tools, which enable me to practice at any moment and provide instant feedback on my progress (S16).*

> *I can see how AI affects learning motivation. Sometimes, the emphasis on certain gamified platforms is so intense that it takes my attention away from the learning objectives. AI is still helpful, though, since it provides content that interests me. While receiving direct feedback is helpful, talking with teachers or fellow students might be more inspiring. Although AI tools are incredibly flexible, human direction is still necessary to keep students motivated to learn (S33).*

Theme 3: ***Influence on decreasing the desire for face-to-face English conversation***. AI can lessen the need for in-person English conversation by offering useful and convenient practice options. Students may practice discussions at their own pace without the strain of face-to-face engagement thanks to tools like chatbots and learning programs. Due to their comfort level and increased freedom to make mistakes, students may prefer virtual chats. Furthermore, pupils become less dependent on others because AI's quick feedback eliminates the need for in-person connection. However, this may also reduce the amount of time spent honing conversational fluency and interpersonal skills in authentic settings. AI offers a convenient and secure environment for practicing conversations, which can lower anxiety and encourage self-directed learning. It might, however, also make pupils

less inclined to contact with people in real life, which could hinder their ability to acquire genuine interpersonal and conversational skills.

> *As a student of English education, I can observe that while AI facilitates conversation practice, it might also lessen the desire for in-person interaction. Speaking with AI helps ease my anxiety about making mistakes, but my inexperience with real-world scenarios sometimes make it more difficult for me to communicate effectively. Even while AI is helpful, it's still critical to look for opportunities for direct discussion because it's crucial for confidence and fluency growth to engage in direct engagement with classmates or native speakers (S18).*

Theme 4: ***Influence on dependency on AI-powered tools in learning English***. When studying English, pupils may become dependent on AI-based resources. While these tools are convenient and provide fast access to vocabulary ideas, grammatical checks, and conversation practice, over-reliance on them might impede the development of critical thinking and problem-solving abilities. Pupils may lose interest in learning on their own as they get accustomed to depending on AI for solutions. Additionally, this reliance may hinder their capacity to consider language use in authentic situations. For the purpose of ensuring comprehensive language instruction, it is crucial to strike a balance between the employment of AI technologies and conventional learning techniques. Although AI-powered tools facilitate language learning quickly and easily, an over-reliance on them may impair students' ability to think critically, solve problems, and use language on their own. To guarantee learner autonomy and comprehensive language development, AI must be balanced with conventional teaching methods.

> *AI tools are really useful, but they can also breed reliance. Even if this program simplifies vocabulary suggestions and grammar checks, I worry that this dependence may lower my confidence in my ability to use English on my own. I frequently rely on AI to provide me with quick fixes, which reduces my use of critical thinking techniques. In order for me to improve my language abilities, it is crucial that I keep employing conventional teaching techniques (S34).*

AI continuously improves speed, flexibility, and personalization in learning for both English and non-English students. Its functions as a learning aids, assistants, resources, online teachers, and problem solver combine to produce a more effective and customized learning environment. At the same time, AI's effects show two sides: although it promotes more drive and quicker learning, it also raises questions about dependency and decreased social contact. When taken as a

whole, these themes highlight how, in order to maximize student achievements, AI must be combined with human direction and conventional teaching techniques.

**Differences on function and influences of AI among English education and non-English education students**

Since subjects of interview were coded and numbered based on two groups as English education and non-English education students, the researchers could notice differences on subjects' experiences, views, and perspectives. In this context, English education students were coded and numbered as "S1 to S18", while non-English education students were coded as "S19 to S36"

According to the findings of 36 participant interviews, English education students and non-English education students differ significantly in how AI functions and influences among them. While English education students see AI as a virtual teacher capable of delivering in-depth explanations and guiding them in language acquisition, non-English education students consider AI more as an instant problem solver that offers rapid solutions to the concerns and difficulties they meet.

Further, English education students depicted that the use of AI makes them less inclined to have direct talks in English. On the other hand, non-English education felt a greater influence on their reliance on artificial intelligence (AI) tools during the learning process, which made them rely more on technology to support learning. This demonstrates that while both student groups agree on the role of AI as a learning aid, there are discrepancies in their perceptions of certain functions and how AI influences their learning.

**Discussion**

The study's findings show both parallels and discrepancies between the ways non-English Education students and English Education students view the role of AI in their educational processes. Both groups acknowledge the value of AI as a personal learning source, a flexible learning aid, and a learning booster, as evidenced by the five overarching themes that emerged about AI's functions. The way that each group perceives AI, meanwhile, varies substantially depending on whether they see it as a virtual teacher or an instant problem solver. Their disparity could be accounted for by the emphasis of their education. Students studying English education, who are more trained in language pedagogy, might comprehend AI's ability to help them learn a language more fully by providing them with

individualized explanations and continuous support, essentially acting as a virtual instructor. The focus of non-English Education students, on the other hand, may not be on language acquisition, therefore they perceive AI more as a tool that solves problems quickly rather than necessarily encouraging deeper learning.

These variations are consistent with constructivist learning theories, which place a strong emphasis on the necessity of students building their own knowledge and understanding by experience and reflection (Mohammed & Kinyo, 2020). Given their training in language learning and instruction, English education students are probably aware of the value of AI in supporting them during this introspective process. Since AI offers personalized training and in-depth feedback, they can see it as a virtual teacher that gradually improves their language abilities. Non-English Education students, on the other hand, might not interact with AI in this kind of thoughtful way; instead, they would value its capacity to offer quick fixes for academic issues. This kind of behaviorist thinking is more in line with how learning is perceived, with quick fixes replacing in-depth thought.

**Tabel 1.** Functions of AI on Learning

| Aspect | English Education Students | Non-English Education Students | Similarity/Difference |
|---|---|---|---|
| **AI as Learning Booster** | Recognized as enhancing language learning efficiency through rapid feedback and adaptive support | Recognized as helping accelerate understanding and improve study independence | Similarity |
| **AI as Handy & Flexible Learning Assistant** | Emphasized flexibility and tailored support that fits their learning styles | Valued accessibility and ability to study at any time with personalized feedback | Similarity |
| **AI as Personal Learning Source** | Used AI for self-directed study and review, while valuing lecturer guidance for depth | Used AI tools to support independent study, but still rely on lecturer input | Similarity |
| **AI as Virtual Teacher** | Viewed AI as a provider of individualized instruction and in-depth explanation | Less emphasized; this role was not prominently acknowledged | Difference |
| **AI as Instant Problem Solver** | Less focus on instant solutions; preferred in-depth support | Valued AI's role in providing quick solutions and clear explanations | Difference |

The ways in which AI influences learning also highlight the distinctions between the two groups. AI speeds up English language acquisition and increases learning motivation, according to both English Education and non-English Education

students. This supports theories of motivation such the Self-Determination Theory (Davis, 2022). AI facilitates self-paced learning by granting learners rapid access to materials and prompt feedback. This approach builds intrinsic motivation by promoting competence and autonomy. The ways in which AI influences their reliance on AI-powered tools and their desire for in-person interactions, however, diverge. English education students expressed a decreased desire for in-person English conversations. This is consistent with sociocultural theory, which highlights the significance of social interaction in language acquisition (Lantolf et al., 2020). They are less likely to look for genuine conversational chances the more they rely on AI for practice, which could impede their ability to achieve fluency in real-world situations.

However, non-English students reported using AI tools more frequently, which may have limited their capacity for critical thought and problem-solving. This dependence could make it more difficult for them to use their language abilities in fluid, erratic contexts, as necessary component of real communication. According to the hypothesis of cognitive load, students who rely too much on AI may not be as engaged in their studies since they will be unable to completely internalize the content because AI will handle more complicated tasks like grammatical analysis and vocabulary recall (Skulmowski & Xu, 2021). This research finding emphasizes the necessity for a well-rounded strategy in which AI is used as a supplementary tool rather than the main source of knowledge. This statement is consistent with what has been noticed by (Kim et al., 2022).

**Tabel 2.** Influences of AI on Learning

| Aspect | English Education Students | Non-English Education Students | Similarity/Difference |
|---|---|---|---|
| **Accelerating English Mastery** | AI tools helped personalize learning, target weak areas, and improve fluency | AI supported efficient, self-paced learning with interactive elements | Similarity |
| **Increasing Motivation to Learn English** | Motivated by flexible access, gamified tools, and personalized content | Motivated by engaging content and instant feedback, despite some distraction | Similarity |
| **Desire for Face-to-Face Conversation** | Reported decreased desire due to comfort with AI-led practice | No significant mention of reduced desire for human interaction | Difference |
| **Dependency on AI-Powered Tools** | Concerned about reduced critical thinking and over-reliance on AI for language tasks | Noted strong reliance on AI, especially for problem-solving, with concern over weakened independent learning | Difference |

In conclusion, although AI is unquestionably a potent instrument that improves accessibility and learning efficiency, its function varies greatly based on the educational environments in which students are enrolled. English education students could find AI useful as a virtual instructor to supplement their pedagogical training, whereas non-English students typically use AI as a handy way to solve problems. Both groups need to exercise caution when depending too much on AI, since this could hinder their capacity to use real language and develop critical thinking abilities. The results highlight how crucial it is to include AI into education in a way that enhances, not replaces, conventional teaching strategies and social interactions in order to promote holistic language development and cognitive development.

**Conclusion and Suggestion**

This study's findings show how students in English education and those in non-English education view AI in their education, both similarly and differently. Both groups consider AI as a useful tool; however, English Education students see it more as a virtual instructor that helps with language learning, while non-English Education students utilize it largely for rapid problem-solving. This discrepancy can be attributed to their different training; English students engage more thoroughly with AI for tailored learning, in line with constructivist theory, whereas non-English students exhibit behaviorist tendencies, emphasizing speed over in-depth comprehension. AI's influence on the process of learning varies as well. For example, when English education students rely too much on AI to practice their language skills, it can make them less engaged in natural interactions and hence less fluent. In keeping with cognitive load theory, non-English education students' extensive usage of AI may impede their ability to think critically and solve problems.

In summary, although AI is an effective teaching tool, its application varies depending on the academic concentration of the pupils. English education students can use it as a virtual teacher, while non-English education students can use it as a problem-solving tool. However, an over-reliance on AI may prevent both groups from practicing their critical thinking and real-world language skills. AI should therefore enhance conventional instruction rather than replace it. The study's conclusions suggest that teachers need to strike a balance between using AI and face-to-face instruction and critical engagement. Ultimately, this study is restricted to

particular student cohorts and depends on self-reported information. Further studies could examine AI's function in other fields and its long-term implications on learning outcomes, providing a more thorough understanding of AI's influence on education.

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