

Barriers to English language development: Effort, learning attitudes, and artificial intelligence

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Abstract

This study aims to examine the barriers to English learning related to learning efforts, learning attitudes, and artificial intelligence (AI) dependence on students of the English Language Education Study Program at IAIN Sorong. Despite the growing use of digital technology and AI, students still face various obstacles in building consistency and independence in learning English. This study uses a qualitative approach with a structured interview method for students in semesters 1, 3, and 5, as well as one lecturer who serves as the Head of the English Education Study Program. The data was analyzed using thematic analysis to identify the forms of obstacles experienced by students in the English language learning process. The results of the study showed that learning barriers varied between semester levels. 1st-semester students face obstacles in the form of low confidence, limited vocabulary, and high reliance on AI. 3rd-semester students experience obstacles in maintaining learning consistency and managing the use of AI effectively. Meanwhile, 5th-semester students face obstacles in the form of academic burden, time constraints, and increased reliance on AI, which has the potential to reduce independent learning efforts. Although students show a relatively positive attitude towards learning English, these various obstacles affect the effectiveness and sustainability of the learning process. These findings show that the use of AI in English learning needs to be managed wisely so as not to strengthen learning barriers but rather to support the development of students' independence and language competence.

Keywords: Learning barriers; AI dependency; English language learning; Learning attitudes; Learning efforts

INTRODUCTION

English language proficiency in the global and digital age has become a practical necessity for college graduates, as it serves as the primary medium of international communication in education, economics, and the professional world. The development of artificial intelligence (AI), such as ChatGPT, Grammarly, and various virtual chatbots, further enriches language learning practices by providing quick access to improve language structure, expand vocabulary, and provide instant feedback. On the one hand, this technology can support learning and improve students' linguistic skills (Fotuna Nawir et al., 2025; Hasbullah Hasbullah et al., 2023; Laili et al., 2024; Rosmayanti, 2025). Nevertheless, it should be noted that the adoption of AI in learning also brings new consequences. Research shows that the excessive use of AI can change the dynamics of learning efforts and students' learning attitudes, as the efficiency offered by AI has the

potential to reduce learning independence and reduce the depth of the thinking process (Anisah et al., 2025; Laili et al., 2024).

Despite the increasing accessibility of digital tools and AI technology, many students, including those in English majors, still face various barriers in developing language skills. These difficulties include speech anxiety, limited vocabulary, and low consistency of independent practice. Attitudes in learning, which are understood as psychological tendencies to give positive or negative assessments of an object, are one of the factors that have a strong influence on determining learning success. Positive attitudes have also been shown to increase motivation and support the development of language skills (Laili et al., 2024; Nur et al., 2025a). In addition, other studies have emphasized that learning efforts and learning attitudes are important factors in shaping students' language competencies, but the existence of AI on the one hand can facilitate access to learning, and on the other hand it can change their business patterns and learning attitudes (Hasbullah et al., 2023; Liunokas, 2025). This condition shows the need to understand more deeply how the three aspects of learning efforts, reliance on AI, and learning attitudes can interact and affect students' English language development in the digital age.

Previous research has consistently shown that learning efforts and learning attitudes are major factors that contribute greatly to achieving the success of students' English language skills. Recent quantitative studies confirm that the intensity of independent practice, the use of weaving strategies, and the consistency of practice have a significant relationship with the improvement of the linguistic skills of EFL students (Laili et al., 2024; Liunokas, 2025; Rosmayanti, 2025). In addition, positive attitudes towards learning English have been shown to increase student motivation, learning engagement, and readiness for language-based academic activities (Idrus et al., 2025; Wei, 2023). These findings underscore the importance of internal factors of students in the language learning process.

In line with these findings, the development of AI technology has enriched the English learning ecosystem. Studies on the use of ChatGPT, Grammarly, and AI-based writing systems show that these tools are able to improve learning efficiency, provide instant feedback, expand vocabulary, and help students generate text with more confidence. A number of local and international studies reveal that students view AI as a supporting tool in completing academic tasks and as a learning medium that is easily accessible, flexible, and helps the process of understanding the material (Laili et al., 2024; Nur et al., 2025a; Wei, 2023).

In addition to focusing on its benefits, some recent research has begun to examine how the use of AI is interrelated with student learning patterns. The study highlights change in motivation, learning strategies, and how students manage their efforts and attention when using AI-based tools. For example, research shows a link between the use of AI and changes in learning styles, assignment adaptation, and how students build confidence in academics. Other studies have also highlighted shifts in cognitive processes during the use of AI (Liunokas, 2025; Nur et al., 2025a; Wei, 2023).

Although various studies have outlined the benefits and challenges of using AI in English language learning, most of these studies still focus on one specific aspect, such as improving writing skills, students' perception of AI, and general learning motivation.

Research on learning efforts and learned attitudes also tends to highlight the internal factors of learners without considering how the existence of AI can change the dynamics of both (Nur et al., 2025b). In addition, empirical studies that directly examine the interaction between learning efforts, reliance on AI, and learning attitudes are still very limited, especially in the context of English students who are already in a digital technology-based learning environment (Liunokas, 2025; Wei, 2023). This gap demands a deeper exploration to gain a complete understanding of how these three factors work together in shaping students' English language skills.

Thus, this study aims to explore how learning efforts, learning attitudes, and AI dependency interact with each other in influencing the development of English language skills of English-majoring students. In particular, this study seeks to answer the following questions:

1. What is the form of student learning in order to learn English?
2. How does a student's learning attitude contribute to the development of English language skills in the digital learning era?
3. How does students' reliance on AI affect their learning process and independence?

METHOD

This study uses a qualitative approach with a structured interview method to explore in depth students' experiences, perceptions, and views on learning efforts, reliance on AI, and English learning attitudes. The qualitative approach was chosen because it was able to provide a more comprehensive and contextual understanding of the phenomenon experienced directly by the participants (Creswell, 2014).

The subject of this study involved nine students of the English Study Program (TBI) from three semester levels, namely semesters 1, 3, and 5 (three people each per semester), as well as one lecturer who served as the Head of the TBI Study Program at IAIN Sorong. Students are chosen as participants because they are considered to represent various learning experiences at different levels, while the Head of the Study Program is involved as an expert informant to provide academic views and policies related to the dynamics of English learning at the study program level.

Face-to-face interviews were conducted using question guides compiled based on three main components of research, namely learning efforts, the use of AI, and learning attitudes. Each interview session lasts approximately 20-35 minutes and is recorded using a voice recorder with the consent of the participants. The interview process was carried out for three consecutive days. The results of the interviews were then transcribed verbatim and analyzed using thematic analysis to identify the main patterns of participants' answers.

Thematic analysis is carried out by selecting, grouping, and interpreting data based on the emergence of themes relevant to the focus of the research (John W. Creswell & Cheryl N. Poth, 2018). The final results of this process are interpreted descriptively to provide a comprehensive picture of the barriers, efforts, and role of technology in English language learning among TBI IAIN Sorong students.

RESULT AND DISCUSSION

Result

The results of the interviews show quite wide differences in various aspects that have been determined, including efforts, the use of AI, and attitudes in the learning process. The students' experience in learning English was conveyed through the diverse views of the nine informants selected in this study. To maintain their identities, the informants were given pseudonyms, namely Student A, Student B, and Student C in the 1st semester; Student D, Student E, and Student F in semester 3; and Student G, Student H, and Student I in semester 5.

Table 1. interview result

Components	Semester 1	Semester 3	Semester 5
Efforts	Learn when there is mood-based, passive in-class homework.	Study regularly, expand your vocabulary, and get active.	Be consistent, study every day, and actively participate in discussions.
Utilization of AI	Use ChatGPT/GT for vocabulary and find answers.	ChatGPT and apps to understand material	AI for grammar/vocabulary but still cross-checking
Attitude	Unmotivated but inconsistent, lacking confidence	High motivation, increased discipline	Motivation varies; commitments fluctuate.
Barriers	Vocabulary is limited and passive; unstable mood	Distractions, lack of confidence	Irregular working hours, fluctuating motivation

Student interviews about learning efforts

The results of interviews with 1st-semester students revealed that they used a variety of learning methods to improve and maintain their English language skills. Their learning efforts outside of the classroom include using social media, music, and games, but their learning habits are still heavily dependent on low mood and confidence.

"Even though I rarely attend classes because of my introverted nature, I am still committed to continuing to learn." (Student A). *"My study pattern depends on my mood, but now I'm starting to dare to ask questions in class because I realize the importance of English to my career"* (Student B). *"I tend to be passive in class, but I still try to improve my English skills even though sometimes I put off studying when I don't feel motivated."* (Student C).

At the 3rd semester level, students show stronger motivation compared to those in the first semester, although challenges such as distractions, irregular study schedules, and inconsistent speaking practices remain prominent. Their learning efforts outside of the classroom mostly involve the use of digital platforms such as TikTok and YouTube. The impetus from the exposure of foreign students and their personal goals also contributes to keeping their enthusiasm going.

"Sometimes I take breaks when I feel lazy, but I still try to learn even through classes. I am less active because of lack of confidence. My main motivation is to continue my studies abroad." (Student D). *"I was still shy to speak in class, but I continued to maintain my enthusiasm for learning. I was motivated by tour guides who spoke*

English fluently, and I wanted to be able to speak like them. " (Student E). "My reading and listening schedule is regular, but speaking is still inconsistent. I actively ask questions and discuss in class. My biggest motivation is my mother, who is constantly learning English, so I want to work harder. " (Student F).

Meanwhile, 5th semester students seem to have a more stable learning pattern but still face challenges in maintaining long-term structure and consistency. All three students admitted to using social media as part of their learning outside of the classroom, although their habits were still influenced by mood. Some even state that low motivation is their main obstacle.

"My studies are not very structured, but they are still routine, especially at night." (Student G). "I learn English in my spare time through movies, songs, and apps like Duolingo. Evening is my favorite time to study" (Student H). "My motivation to learn comes from the importance of English for the future and international communication" (Student I).

Student interviews about learning attitudes

At the 1st semester level, students generally show a positive learning attitude, although it is still accompanied by fluctuations in motivation. They tend to face learning difficulties calmly, aren't afraid to make mistakes, and rely on AI, Google Translate, and discussions with friends to find solutions. However, they still face obstacles such as unstable commitments and limited discipline, suggesting that their overall positive attitudes have not been fully supported by consistent learning behaviors.

"I started relying on AI because it was very helpful when dealing with difficult material and challenging questions from lecturers..." (Students A, B, and C).

At the 3rd semester level, students show a more mature learning attitude. Their motivation is stronger due to increased awareness of academic demands and future career opportunities. However, they still face obstacles such as distractions, low confidence in speaking, and occasional decreased commitment. Thus, although their attitudes are more developed than 1st semester students, the internal challenges associated with attention management and consistency remain significant barriers.

"I added vocabulary to better understand the material, and I was very enthusiastic about this major because I realised the importance of English to my career." (Student D). "When I had difficulty studying, I immediately looked for a solution by discussing and consulting with friends and lecturers. " (Student E). "When I face difficulties, I listen to music first to regain my motivation" (Student F).

At the 5th semester level, students show a more goal-orientated learning attitude, especially regarding career plans and advanced studies. They recognise the importance of English for global opportunities and international communication. Even so, the obstacles they face tend to be more complex. Some students experience unstable motivation due to personal factors, low interest in the major, or an unsupportive learning environment. This suggests that the learning attitudes of final-year students can be greatly influenced by academic identity and personal interests.

"I look for references and keep practicing whenever I face difficulties." (Student G). "I learn by looking for additional material or using ChatGPT when I'm struggling. I use a study method that suits my interests, such as Duolingo, but my commitment and discipline are still unstable because it often depends on my mood." (Student H). "My motivation is low because this major is not my main interest, but I still learn through engaging content like TikTok, even though my commitment and motivation are still limited" (Student I).

Student interviews on the use of AI

At the 1st semester level, AI is widely used to understand vocabulary, search for references, and correct grammatical errors. The most frequently used applications include ChatGPT, Blackbox, Grammarly, and Google Translate. However, even though AI provides quick and convenient results, many students feel that it can also be an obstacle to developing their thinking skills. The main limitation they experience involves relying on instant answers without processing or interpreting the information in depth.

"The weaknesses need to be understood more deeply because sometimes there are still things that are still unclear." (Student A). "The weakness I feel when using AI is the dependency it creates, which makes me too lazy to read." (Student B). "The downside is that sometimes we don't understand the content of the reading unless we process it deeper." (Student C).

At the 3rd semester level, AI is more widely used for material comprehension, grammar checking, and vocabulary expansion. For many students, AI becomes especially useful when they are having difficulty learning or need additional resources. However, they recognize that uncontrolled use of AI can lead to dependency and reduced independent thinking.

"I rely heavily on AI because it helps a lot when I don't understand something, but I also try to learn and understand it myself without relying entirely on it." (Student D). "I feel very dependent on technology because every time I learn, I use AI to find the meaning of words or improve grammar" (Student E). "In my opinion, the level of dependence on technology depends on the situation and context of learning. If I can still understand the material, I rarely use AI. But when it gets difficult, I use AI to help" (Student F).

At the 5th semester level, AI is used more widely, especially to translate long texts, understand difficult concepts, find references, and improve grammatical accuracy. The frequent use of AI at this level tends to reduce students' learning efforts. In addition, they also experience limitations in deep understanding and a higher risk of dependency due to the tendency to rely on instant results.

"I feel very dependent on technology, especially AI, in the process of learning English. AI has become my main tool for understanding material and looking for additional references." (Student G). "I feel that my reliance on AI depends on the situation and the context of learning. If I can understand the material easily, then my AI usage is reduced, but when it's hard, I use AI" (Student H). "Just like previous speakers, I also feel very reliant on technology, especially AI, because it helps me understand the material more deeply and complete tasks faster." (Student I).

Interview with the Head of the English Education Study Program

The interview with the Head of the English Education Study Program provided a comprehensive overview of the conditions faced by students in developing their English language skills, especially in relation to learning efforts, dependence on AI technology, learning attitudes, and internal and external obstacles they face.

The level of effort students make in learning English is still considered moderate. Many students tend to work on their assignments instantly and have not shown strong independent effort, such as looking for additional references or doing continuous exercises. However, there are some students who are able to use technology wisely so that they continue to show positive learning efforts. In general, the level of effort students put in is still divided between those who actually try and those who rely on the convenience of technology.

"In my opinion, students' efforts to improve their English skills outside of class hours are not very clear. Nowadays, when students are given an assignment, they tend to look for instant answers, unlike in the past, when we had to gather a lot of information first just to write a paragraph. However, for students who understand and are able to use AI well, I think they are diligent because they can use technology wisely. Overall, I rate the level of effort among students as balanced, or what could be described as 'fifty-fifty', either in the first, third, or fifth semesters" (Head of the English Education Study Program).

From the perspective of learning attitudes, motivation and consistency are two key factors that influence student learning behavior. Their motivation tends to be temporary and often arises due to task pressures rather than internal drives. Learning consistency is also low and is only seen in a small number of students. In addition, the peer environment plays an important role; supportive study groups can increase enthusiasm, while passive environments tend to weaken interest in learning.

"Actually, in my opinion, motivation and consistency are the two main driving forces for students to get things done. However, the impact is different. Motivation is like fireworks that shine brightly but quickly fade, while consistency is like a sun that shines slowly but continuously. Usually, motivation arises due to external motivations, such as deadlines from lecturers. Meanwhile, consistency is something I rarely encounter. In a class, it may be only the class president who is truly consistent because they have inherent responsibilities. During my three years of teaching, I have observed that students' motivation and consistency are also influenced by their circle of friends. Usually, it is in these small groups that we can see who really has a stable enthusiasm for learning" (Head of the English Education Study Program).

In terms of the use of AI, there has been a significant increase in the use of apps such as ChatGPT, Grammarly, and Google Translate. Easy internet access and students' preference for fast and concise learning materials are factors driving such use. However, a highly AI-dependent learning pattern can lead to a superficial understanding among students, as the information obtained is often not processed critically.

"I've seen an increase in the use of AI-based tools among students. This is because they now have their own internet access, there are requirements for almost all courses, and today's lifestyles tend to demand quick results. The phenomenon I see today is that students prefer short things, such as short instructional videos. Even though the

material is long, they need motivation or a compelling reason to keep listening. As a result, curiosity decreases and critical thinking skills become less honed. Students become more flexible because they know this and that, but because the answers often come from AI, the results are generic and less in-depth." (Head of the English Education Study Program).

The obstacles faced by students come from internal and external factors. Externally, the lack of an English-speaking environment results in minimal opportunities for natural exercise. Internally, students still face obstacles in time management, self-discipline, and high distractions from social media and games. These obstacles show that the challenges in mastering English are not only related to academic competence but also to the ability to manage oneself and the learning environment.

"In my opinion, the obstacles faced by students in mastering English can come from two sides, namely external and internal. From an external perspective, the constraint lies in the social or friendship environment. Not all friends actively use English, so they don't have the opportunity to practice their language skills. From an internal perspective, I believe the biggest obstacles come from the students themselves, especially in terms of their goals and aspirations. Many students spend most of their time on social media or playing games, so they don't use their free time to hone their potential. In conclusion, external barriers include a lack of an environment that supports the use of English, while internal barriers include time management issues and difficulty withstanding distractions." (Head of the English Education Study Program).

The findings of the Head of the Department show that student efforts, learning attitudes, technology use, and obstacles faced are interrelated. This condition emphasizes the importance of more adaptive learning strategies to increase efforts, optimize the wise use of AI, and strengthen students' attitudes and learning habits.

Discussion

The findings of this study show that the roles of effort, learning attitudes, and dependence on AI are interrelated and show quite clear differences in students of the English Education Study Program in semesters 1, 3, and 5. Early semester students tend to use a flexible and mood-dependent learning pattern, with low levels of confidence. In these conditions, AI is used as the main tool to overcome vocabulary limitations, understand the material, and complete academic assignments. As the semester level increases, students begin to show more directed learning efforts and are orientated towards academic and career goals. However, the increase in academic load and non-academic busyness also drives an increase in reliance on AI, especially among 5th semester students, although their attitudes towards English learning remain positive.

The results of this study are in line with the findings of previous research which confirms that learning efforts and learning attitudes are key factors in the success of English language learning. A positive learning attitude has been shown to correlate with increased motivation and student involvement in the learning process, which ultimately has an impact on more optimal learning outcomes (Getie, 2020). Students who have a positive attitude tend to be more open to learning challenges and more actively utilize

various learning resources (Anokye, 2022; Getie, 2020). However, in the current digital learning context, the role of AI also influences how these learning attitudes and efforts are manifested in daily learning practices.

In line with previous research, these findings also confirm that the use of AI can make a positive contribution to the efficiency and comfort of learning English (Nur et al., 2025b). A variety of AI-based applications help students get instant feedback, correct grammatical errors, and expand vocabulary. Nonetheless, this study adds a new perspective by showing that AI dependence is not always directly proportional to improved learning quality. In some cases, high dependency actually reduces the intensity of self-practice and the depth of student understanding, especially when AI is used as a source of instant answers without a reflection process.

Viewed from a broader perspective, the reliance on AI in English language learning reflects the social context and culture of digital learning that emphasizes speed, ease, and instant results (Sitorus et al., 2025). The technology-laden academic environment shapes students' preference for practical and efficient learning strategies. Students' positive attitudes towards learning English show awareness of the importance of English as academic and professional capital (Vrika & Fauziah, 2025). However, if AI dependency is not balanced with independent and reflective learning efforts, the learning process risks shifting from competency development activities to just completing tasks.

Reflection on the findings of this study shows the existence of functions and dysfunctions of AI dependence. On the one hand, AI serves as a learning facilitator that helps students overcome linguistic difficulties, increase confidence, and expand access to learning resources. On the other hand, excessive reliance on AI has the potential to lower intrinsic motivation, weaken learning independence, and produce superficial understanding. This emphasizes that a positive learning attitude needs to be supported by consistency, self-discipline, and the right learning strategies in order to produce optimal learning outcomes.

Based on these findings, an active role of lecturers and educational institutions is needed in managing the use of AI pedagogically. AI needs to be positioned as a tool that supports the learning process, not as a substitute for students' learning efforts. Lecturers can design process-based assignments that encourage reflection, discussion, and verification of results from AI, as well as reinforce collaborative learning to increase student engagement. Although this study provides a relevant picture of the dynamics of English learning in the digital age, limitations still need to be considered, especially regarding the number of participants and the specific research context. Therefore, further research is recommended to involve a wider sample, using a mixed-methods approach, as well as examine the long-term impact of AI dependence on students' independence and language competence.

CONCLUSION

This study highlights the interrelated role between learning efforts, learning attitudes, and the dependence of AI in English learning in English Language Education Study Program students at various semester levels. The results showed that students' learning patterns evolved from a flexible and exploratory approach in the first semester

to a more structured and goal-orientated learning strategy in the higher semester. However, these developments have also been accompanied by an increasing reliance on AI, especially in final semester students, in response to academic demands and time constraints.

In addition, the research findings show that students generally have a positive attitude towards learning English and are aware of the importance of English for academic and professional purposes. However, this positive attitude is not always reflected in the consistency of learning behavior. Excessive reliance on AI has the potential to reduce the intensity of self-paced practice and deep engagement of students in the learning process.

Overall, this study confirms that the use of AI can provide effective support in English learning if used wisely and balanced, while still placing students' learning efforts as the main element. However, this study has limitations on the number of participants and the specific institutional context, so the results need to be interpreted carefully. Further research is recommended to involve a wider and more diverse range of participants and further examine the long-term impact of AI dependence on students' learning independence, motivation, and English language skills.

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