



Student Reliance on Dola AI Tools in Reading Comprehension Tasks in State Junior High School 9 Satap Tondano

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ARTICLE INFO	ABSTRACT
Received: 09 May 2026	The increasing use of Artificial Intelligence (AI) in education has provided students with convenient access to information and assistance in completing academic tasks, but excessive dependence may reduce independent learning, critical engagement, and information evaluation, particularly in English reading comprehension. This study aims to describe junior high school students' dependence on Dola AI, their responses to AI errors and inaccessibility, strategies for verifying AI-generated answers, and perceptions of teachers' roles in responsible AI use. A qualitative descriptive design was employed with 10 students from Grades 7 and 8 at State Junior High School 9 Satap Tondano, selected through purposive sampling based on mobile-phone ownership and active use of Dola AI for English reading tasks; data were collected through non-participant classroom observations and semi-structured interviews and analyzed thematically. The findings revealed three patterns of AI dependence: high dependence among 20% of participants, moderate dependence among 50%, and low dependence or independent learning among 30%. Highly dependent students experienced panic when AI was unavailable, trusted AI-generated answers without verification, and sometimes submitted system error messages as answers, whereas moderately dependent students used AI for convenience with limited verification and independent students verified information and continued working without AI. The findings indicate that AI dependence is shaped by students' self-efficacy, digital literacy, and teacher guidance, highlighting the need to strengthen independent reading skills, critical AI literacy, verification strategies, and explicit teacher guidance for responsible AI use.
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1. Introduction

In today's learning environment, technology has become an integral part of students' daily lives, significantly influencing how they access information and complete academic assignments. One of the fastest-growing technologies is Artificial Intelligence (AI), which has transformed various aspects of education (Holmes et al., 2019; Luckin et al., 2016). As recent research indicates, the emergence of AI as a rapidly developing technology is reshaping many areas of human activity, including teaching and learning processes (Zawacki-Richter et al., 2019; Crompton & Burke, 2023). In the context of English language learning, AI tools such as Dola AI and ChatGPT are increasingly being used by students to assist with assignments, provide explanations, and generate answers efficiently. The generative AI tools have become increasingly integrated into language education, particularly because they can provide personalized responses, language assistance, feedback, and support for self-directed learning (Alharbi, 2023; Ji et al., 2023; Kohnke et al., 2023; Lo, 2023; Yan, 2024). The integration of AI in education offers several benefits, such as instant feedback, language support, and accessibility of information. These features are particularly helpful for students struggling with vocabulary and grammar. Research on AI in education has similarly identified personalized learning, immediate feedback, accessibility, and learning support as among the major opportunities offered by AI technologies (Crompton & Burke, 2023; Deng et al., 2024). However, despite these advantages, the use of AI also raises critical concerns. Previous research has shown that over-reliance on AI can negatively impact students' cognitive development, including a decline in critical thinking and problem-solving skills (Lee et al., 2025). This suggests that while AI can support learning, its widespread use can lead to passive learning behavior and a decline in independent understanding. AI dependency further indicates that excessive reliance on generative AI may be associated with reduced creativity, critical thinking, independent thinking, and students' ability to complete academic tasks without technological assistance (Li et al., 2024).

From a theoretical perspective, self-efficacy theory explains that students with low academic self-confidence tend to seek external help when facing difficulties (Bandura, 1997). In the context of AI use, this can lead to over-reliance on AI tools as an alternative to independent efforts. As a result, students may rely on AI-generated answers without fully understanding the content or assessing the accuracy of the information provided. Bandura's (1997) theory of self-efficacy emphasizes that learners' beliefs about their capabilities influence their cognitive processes, motivation, persistence, and behavioral choices. Therefore, students who have limited confidence in their ability to comprehend English texts may be more likely to delegate difficult cognitive tasks to AI rather than persist in solving the problem independently. Recent empirical research provides further support for this relationship by showing that academic self-efficacy, academic stress, and performance expectations can influence problematic AI usage and AI dependency (Li et al., 2024). More recent evidence also suggests that excessive generative AI reliance may create a paradox in which technology increases students' confidence while simultaneously weakening their confidence in completing tasks independently (Liu et al., 2024).

The increasing use of AI in learning highlights the importance of digital literacy. Digital literacy encompasses the ability to access, transmit, and use information critically and responsibly. However, many students still assume that AI-generated responses are always correct, without evaluating or verifying the results. This lack of critical awareness can lead to inappropriate use of AI, where students rely on it as a shortcut rather than as a learning support tool. In contemporary AI-supported learning, digital literacy needs to be understood

not only as the ability to operate digital technologies but also as the ability to critically evaluate information, recognize limitations, and make responsible decisions when interacting with AI systems (Long & Magerko, 2020; Ng et al., 2021). AI literacy should include students' ability to understand how AI systems work, recognize their limitations, evaluate AI-generated outputs, and use AI responsibly (Ng et al., 2021; Kong et al., 2024). This issue is particularly important for school-age learners because recent research has identified a continuing gap in AI literacy education among younger students, despite the increasing presence of AI in their everyday lives (Kong et al., 2024). Furthermore, objective assessments of AI literacy among students in Grades 7–9 indicate that AI literacy involves knowledge and competencies that cannot simply be assumed from students' frequency of AI use (Williams et al., 2024). Thus, frequent use of AI does not necessarily indicate that students possess adequate AI literacy or critical digital competence.

The phenomenon of AI dependence observed by the researcher includes several characteristic behaviors. First, most students immediately open the Dola AI application as soon as the teacher gives a reading assignment, without attempting to understand the original text first, indicating that they use AI as the first step rather than the last. This behavior is consistent with recent research showing that students demonstrate different patterns of reliance on generative AI, ranging from low reliance to using AI as a substitute for completing assignments and academic tasks (Yan, 2024). Second, the most concerning phenomenon is that when the AI system displays an error message such as "text is not found", some students actually copy the error message and submit it as their answer, which indicates that students do not understand the function of AI properly and only use it mechanically. Such behavior is particularly relevant to the concept of AI literacy because responsible AI use requires users to recognize that AI systems can produce inaccurate, incomplete, irrelevant, or technically erroneous outputs (Kasneci et al., 2023; Tlili et al., 2023). Third, when the internet connection is problematic or the Dola AI application is experiencing an error, students show signs of anxiety, frustration, and tend to stop working on the task, as they are reluctant or afraid to read English texts independently. This phenomenon may be understood in relation to self-efficacy because learners with limited confidence in their own capabilities may demonstrate lower persistence when external assistance is unavailable (Bandura, 1997). In line with Liu et al. (2024) who indicates that academic anxiety and performance expectations can contribute to students' reliance on generative AI. Fourth, most students do not have strategies to check the accuracy of answers generated by AI, and they tend to blindly accept all information provided by Dola AI. This problem is closely associated with the need for critical AI literacy, since effective AI-supported learning requires students to question, evaluate, verify, and reflect on AI-generated information rather than simply accept it (Kasneci et al., 2023; Miao & Holmes, 2023). This problem becomes more complex when linked to the learning objectives of reading in the Merdeka Curriculum, which emphasizes the development of critical thinking skills, deep understanding, and learning independence, as excessive dependence on AI has the potential to hinder the achievement of these objectives. Likewise, Deng et al. (2024) and Ji et al. (2023) emphasizes that the educational value of generative AI depends substantially on how learners engage with the technology and whether AI is used as a learning support rather than as a replacement for cognitive effort.

Equitable access to education in Indonesia remains a challenge, particularly in regions with limited facilities and reach. To address this, the government, through the Ministry of Education, Culture, Research, and Technology, has developed the One-Roof School (SATAP) program, an educational model that integrates elementary and junior high schools (SMP) in

one location to facilitate access to learning for students in remote areas. One example of this program is State Junior High School (State Junior High School) 9 Satap Tondano, located in Masarang. This school has a relatively small enrollment of around 20 students, reflecting the real-world conditions of schools in areas with limited access and resources. The presence of SATAP schools in this area is crucial in supporting students' educational aspirations, preventing them from dropping out after completing elementary school.

English teachers at the school expressed concern that students' ability to independently analyze and comprehend reading texts had declined due to their reliance on AI. Students also experienced difficulties when AI provided unclear or irrelevant responses, as they were unable to interpret or correct the information. These findings suggest that these issues are related not only to the use of AI but also to students' awareness, attitudes, and digital literacy in effectively utilizing AI. This interpretation is supported by recent research showing that the educational benefits of generative AI are not automatic but depend on learners' ability to critically engage with AI outputs and on teachers' guidance concerning responsible use (Kasneci et al., 2023; Crompton & Burke, 2023). In language education specifically, systematic reviews have shown that much of the existing research has concentrated on the perceived usefulness, acceptance, and instructional potential of ChatGPT, while issues concerning responsible use, critical evaluation, and learner dependency require further investigation (Li et al., 2024; Yan, 2024).

While previous research has explored the impact of AI in education, most have focused on high school or university students. Limited research has examined how junior high school students rely on AI, particularly in responding to AI-generated errors in reading comprehension tasks. Recent systematic reviews of ChatGPT in language education have similarly identified the dominance of higher education contexts and highlighted the need for research involving younger learners and diverse educational settings (Li et al., 2024; Yan, 2024). In addition, existing research has tended to examine students' perceptions, acceptance, learning outcomes, or general experiences with ChatGPT rather than examining what students actually do when AI produces an error or becomes unavailable. Therefore, the present study addresses an important gap by focusing on students' observable reliance behaviors, their responses to AI inaccuracies and system failures, and their awareness of responsible AI use during English reading comprehension activities. Therefore, this study aims to fill this gap by investigating students' reliance on AI tools, their responses to AI inaccuracies, and their awareness of using AI responsibly in English language learning.

2. Literature Review

2.1 *Concept and Theory*

Research on the use of Artificial Intelligence (AI) in language learning has rapidly expanded in recent years, especially as students increasingly rely on tools such as ChatGPT, Grammarly, and similar AI-based applications. Several studies provide insight into how AI affects students' critical thinking, reading comprehension, and learning independence issues that closely relate to the situation observed at State Junior High School 9 Satap Tondano. Recent reviews indicate that generative AI has become an increasingly important research area in language education, with studies examining its potential benefits, challenges, learning outcomes, and implications for responsible use (Lee, 2026; Zheng & Yang, 2024). However, existing research has predominantly focused on university-level learners, while empirical research involving younger learners remains comparatively limited (Li et al., 2024; Lee, 2026).

A study by Kasneci et al. (2023) found that while AI tools can support learning, excessive

reliance may reduce students' cognitive engagement and discourage deep reading. Their findings show that many learners accept AI responses without verifying accuracy, which mirrors the behavior of students in this study who copied AI outputs, including irrelevant or incorrect responses. Recent research continues to emphasize that the educational value of generative AI depends substantially on how learners interact with its outputs. Students who critically evaluate AI-generated information are more likely to engage in reflective and cautious forms of AI use, whereas uncritical acceptance may encourage thoughtless reliance (Hou et al., 2025). Similarly, research on students' cognitive processes during generative-AI-assisted learning has shown that some learners tend to directly adopt AI-generated summaries rather than independently processing and developing the content themselves (Liu et al., 2024).

Similarly, Wei (2023) reported that overreliance on AI chatbots in EFL reading tasks contributed to superficial processing of texts. Students tended to trust AI-generated answers rather than analyzing the reading passage independently (see also Aladini et al., 2025; Wang et al., 2024; Yu, 2021). This strongly aligns with the case at State Junior High School 9 Satap Tondano, where students wrote AI error messages such as "text is not found" as their post-test answers. Recent evidence from EFL contexts demonstrates that AI-based chatbots can influence foreign-language reading experiences and performance among secondary school students, including students' reading anxiety and engagement with reading tasks (Zheng, 2024). Research examining ChatGPT in English reading comprehension has also shown that AI can perform language comprehension tasks but does not eliminate the need for learners to engage directly with the original text and evaluate the quality of the generated response (de Winter, 2024). Thus, the usefulness of AI in reading comprehension depends not only on the availability of AI assistance but also on students' ability to critically process and verify the information provided.

In the Indonesian context, Voutama et al. (2025) highlighted that many junior and senior high school students struggle with digital literacy when interacting with AI-based tools. Students often fail to evaluate whether AI answers match the task, leading to misunderstanding and lower academic accuracy. This supports the researcher's observation that students depended on Dola AI because they lacked confidence in their own reading skills. Recent international research on AI literacy similarly indicates that students' ability to use AI effectively cannot be assumed simply from their frequency of AI use. AI literacy includes knowledge about AI, understanding its limitations, and the ability to critically evaluate AI-generated information (Zhong & Liu, 2024; Kong et al., 2024). Research involving students in Grades 7–9 has also demonstrated the importance of objectively assessing AI literacy among secondary school learners rather than relying only on students' self-perceptions of their AI competence (Zhang et al., 2024).

Although AI applications help students completing assignments more quickly, many learners admit that they do not fully understand the content they submit. This reflects the pattern seen in the present research, where students rely on AI not to support learning, but to replace the reading process entirely. Recent studies similarly suggest that generative AI can facilitate learning when it functions as a cognitive or metacognitive support, but the learning benefits may be reduced when students simply adopt AI-generated responses without engaging in their own reasoning processes (Sardi et al., 2025; Hou et al., 2025). A systematic review of generative AI and self-regulated learning also emphasizes that AI can promote independent learning when students use it strategically for reflection, feedback, and metacognitive regulation rather than as a substitute for their own cognitive activity (Chang &

Sun, 2024).

Finally, Zhang et al. (2024) noted that heavy dependence on AI can weaken students' problem-solving and analytical abilities. They argued that AI should complement not replace core cognitive skills. These findings are relevant to this research because students at State Junior High School 9 Satap Tondano depended on AI so strongly that they reproduced AI mistakes without checking the reading text. More recent empirical research provides a more nuanced understanding of this relationship, showing that AI does not automatically reduce critical thinking; rather, the effects depend on how students interact with AI and whether learning activities require critical evaluation, reflection, and active engagement (Hou et al., 2025; Liu et al., 2024). A recent systematic review similarly concluded that ChatGPT can provide significant educational benefits when appropriately integrated into learning activities, but its effectiveness depends on contextual factors and instructional scaffolding (Zheng, 2024). Taken together, these studies consistently show that AI is helpful when used wisely but can lead to dependency when students lack digital literacy and critical awareness. Although many researchers have examined AI use among high school and university students, studies focusing on junior high school students especially in the context of Dola AI are still limited. This strengthens the importance of the present research, which seeks to understand how younger learners use AI and how their dependence influences their understanding and learning behavior.

2.2 The Nature of Reading Comprehension

Reading comprehension is a complex cognitive process in which readers actively construct meaning from written texts. According to recent research, reading comprehension involves the interaction between linguistic knowledge, background knowledge, cognitive processing, and the reader's ability to construct meaning from textual information (Song & Reynolds, 2022). The reader brings background knowledge, vocabulary, and cognitive strategies; the text presents information in various structures; and the activity refers to the purpose and process of reading. Comprehension occurs when readers integrate these elements to build a coherent mental representation of the text, often referred to as a "situation model." This process requires not only decoding skills but also higher-order thinking such as inference-making, monitoring understanding, and evaluating information. Recent research on L2 reading further confirms that vocabulary knowledge and lexical coverage are important contributors to reading comprehension because insufficient knowledge of words can constrain learners' ability to construct meaning from texts (Song & Reynolds, 2022). In addition, contemporary research on AI-supported reading suggests that technology can provide assistance during comprehension, but learners still need to engage in active processing, interpretation, and evaluation of textual information (Kim, 2024; de Winter, 2024).

2.3 Reading Comprehension in EFL Contexts

In English as a Foreign Language (EFL) context, reading comprehension presents additional challenges for learners. EFL readers often struggle with limited vocabulary, unfamiliar grammatical structures, and lack of background knowledge about the text's cultural content. These difficulties can lower students' reading motivation and self-confidence, making them more likely to seek external assistance. Recent research confirms that vocabulary knowledge and lexical coverage have a substantial relationship with L2 reading comprehension, particularly because learners need sufficient lexical knowledge to process and interpret written texts effectively (Song & Reynolds, 2022). In addition, research

involving secondary school EFL learners demonstrates that foreign-language reading may be associated with reading anxiety, while appropriately designed chatbot support can influence students' reading experiences and performance (Zhang et al., 2024).

As noted by Zhang et al. (2024), students with low academic self-efficacy are more prone to relying on AI tools to compensate for their perceived incompetence. Recent evidence similarly indicates that academic self-efficacy can be an important factor associated with problematic AI use and dependency. In the context of junior high school students in Indonesia, where English is taught as a foreign language, reading comprehension tasks such as understanding descriptive texts often require significant effort. When AI tools like Dola AI offer quick translations and answers, students may choose the path of least resistance, sacrificing deep comprehension for immediate task completion. This concern is particularly important because AI-supported language learning can provide immediate assistance, but students need appropriate guidance to ensure that the technology functions as a learning support rather than replacing their own comprehension processes (Lee, 2026; Zheng & Yang, 2024).

2.4 AI-Assisted Language Learning (AIALL)

AI-Assisted Language Learning (AIALL) represents the integration of artificial intelligence technologies into language learning environments. Unlike earlier Computer-Assisted Language Learning (CALL) systems that followed pre-programmed rules, AIALL systems use machine learning and natural language processing to interact with learners in more adaptive and human-like ways. These systems can provide instant feedback, generate personalized exercises, simulate conversations, and answer learner questions. Recent reviews of generative AI in language education demonstrate that AI-supported language learning has expanded rapidly, with applications involving writing, speaking, reading, vocabulary development, feedback, translation, and conversational practice (Zheng & Yang, 2024; Lee, 2026). Systematic research on conversational AI in English language teaching also indicates that AI chatbots can produce positive cognitive and affective learning outcomes, although researchers emphasize the importance of appropriate instructional design and responsible implementation (Li et al., 2024).

Zhao and Lai (2023) argued that technology should serve as a "tool" to support meaningful learning rather than replace cognitive effort remains critical in contemporary AI-assisted language learning (see Chapelle, 2004). In AIALL, this principle remains critical: AI should act as a scaffold that helps learners develop their own language abilities, not as a crutch that eliminates the need for thinking. Recent research supports this principle by demonstrating that AI can function as a "mind tool" that encourages strategic learning, reflection, and self-regulation when learners actively control and evaluate their interactions with AI (Chang & Sun, 2024). Therefore, AIALL should not be understood merely as the substitution of traditional learning activities with AI-generated answers, but as an approach in which AI supports learners' active participation and development of language competence (Grab, 2025; Liu, 2026).

2.5 AI Tools for Reading Comprehension

A variety of AI tools are currently available to support reading comprehension. These tools generally fall into several categories: (1) Intelligent Tutoring Systems that guide students through reading strategies; (2) Chatbots and Conversational AI (such as ChatGPT and Dola AI) that answer questions about texts; (3) Automated Question Generators that create

comprehension questions from passages; and (4) Translation and Summarization Tools that simplify texts for learners. Recent research on generative AI in language education identifies similar applications, including text generation, translation, summarization, feedback, conversational interaction, and personalized learning support (Zheng & Yang, 2024; Lee, 2026). While these tools can offer valuable support, recent research indicates that the educational value of conversational AI depends on how learners engage with the generated responses and whether they critically evaluate the information against the original learning materials (Hou et al., 2025).

Students tend to trust AI-generated answers without verifying them against the original text, reducing opportunities to practice inference, main idea identification, and critical evaluation. This is particularly problematic when AI tools produce inaccurate or irrelevant responses, as students with low digital literacy may accept these errors as correct. Research on AI literacy among secondary students emphasizes that effective AI use requires students to understand AI systems, recognize their limitations, and develop higher-order thinking skills when interpreting AI outputs (Zhong & Liu, 2024). Furthermore, objective AI literacy research involving students in Grades 7–9 demonstrates that students' actual AI literacy should be distinguished from their perceived ability to use AI (Zhang et al., 2024). Therefore, the use of AI tools for reading comprehension should be accompanied by activities that require students to compare AI responses with the original text, identify errors, justify answers, and make independent judgments.

2.5 Dola AI and the Performance of Dola AI

Dola AI is an example of conversational AI tools designed to assist users with various tasks, including language learning. While Dola AI is known for its voice-based interaction and task management features, Dola AI is marketed as an AI assistant capable of answering questions, providing explanations, and helping with schoolwork.

The increasing availability of conversational AI assistants means that students may interact with AI tools not only for formal classroom activities but also as part of their everyday digital practices. Recent research on conversational AI in English language teaching indicates that chatbot-based systems can provide learners with immediate interaction, feedback, and language support (Li et al., 2024). However, the effectiveness of such tools depends on learners' ability to use them critically and responsibly. Therefore, in the present study, Dola AI is not examined primarily as an instructional intervention but as a technological environment through which students demonstrate particular patterns of reliance, responses to system errors, and awareness of AI-generated information. This distinction is important because the present research focuses on students' behavior and experiences when using Dola AI during reading comprehension tasks rather than measuring the effectiveness of Dola AI as a teaching intervention.

2.6 Cognitive Load in AI-Assisted Reading

Cognitive load is commonly discussed in relation to the inherent complexity of learning material and the way instructional information is presented. Ideally, AI tools should reduce extraneous load by simplifying access to information, allowing students to focus on meaningful comprehension and learning processes. Recent research on AI-supported learning suggests that generative AI can provide cognitive and metacognitive support by reducing some barriers to accessing information and providing adaptive assistance (Chang & Sun, 2024; Sardi et al., 2025). However, when students rely on AI to generate answers without reading

the text, they may experience a different problem: reduced cognitive engagement. Recent studies show that students may directly adopt AI-generated summaries or responses instead of constructing their own understanding of the learning material (Liu et al., 2024). Similarly, research on reliance behaviors indicates that students' use of generative AI can range from reflective and cautious engagement to thoughtless reliance, depending on their critical thinking and AI literacy (Hou et al., 2025).

Therefore, although AI may reduce certain forms of cognitive burden, excessive dependence can also reduce the cognitive effort students devote to interpretation, inference, evaluation, and problem-solving. This is particularly relevant to reading comprehension because successful reading requires learners to actively process information rather than merely receive an externally generated answer. Thus, the central issue is not whether AI reduces cognitive load, but whether AI-assisted reading maintains an appropriate level of productive cognitive engagement necessary for independent comprehension.

3. Method

This study employed a qualitative descriptive research design aimed at exploring the phenomenon of students' dependence on their natural environment (Maxwell, 2013). This design enabled the researcher to understand students' behaviors, perceptions, and attitudes without manipulating the ongoing learning process. The researcher acted as the primary instrument, directly collecting data through observation and interviews to generate a rich and contextualized picture of technology use in schools. The descriptive approach was chosen because the researcher focused on the subjective meanings constructed by participants in response to the presence of Dola AI in English reading assignments.

3.1 *Setting and Participants*

This study is conducted at State Junior High School 9 Satap Tondano. The school was chosen based on the researcher's direct observation during teaching practice, where a unique phenomenon was found: students relied heavily on AI tools such as Dola AI to complete English reading tasks, and some even copied AI error messages as their answers. The total population of this study is all students at State Junior High School 9 Satap Tondano, which consists of 20 students, with the following distribution: 6 students in Grade 7, 7 students in Grade 8, and 7 students in Grade 9.

The sample was selected using purposive sampling. The criteria for selecting participants were: (1) students who owned a mobile phone, and (2) students who actively used Dola AI for English reading comprehension tasks. From the total population of 20 students, only 10 students met both criteria, consisting of 5 students from Grade 7 and 5 students from Grade 8. These 10 students were then included as the sample of this study, while the remaining 10 students were excluded because they did not own a mobile phone or did not actively use Dola AI.

3.2 *Data Collection*

To obtain rich and contextual data, several creative and interactive data collection techniques are used as follows:

a. Observation

The researcher conducted direct observations in class while students worked on a reading comprehension task. These observations were non-participant, meaning the researcher did

not interfere with or assist students during the learning process. The goal of this technique was to capture natural behavior without any external influence. Through observations, the researcher aimed to identify how often students opened and used Dola AI during the reading task, at what stage of the task they used the AI (e.g., before reading, after reading, or when struggling with a question), and how they responded to the AI-generated answers, such as copying directly, reading first, discussing with a friend, or ignoring the answers. The researcher also noted whether students attempted to read the text independently or directly relied on the AI's output. To conduct observations systematically, the researcher sat at the back of the class to minimize distractions. Each student's behavior was recorded using an observation checklist and field notes, with special attention paid to students identified as using Dola AI based on initial screening.

b. Interview

Researchers conducted semi-structured interviews with selected participants to explore the reasons behind their reliance on Dola AI. These interviews aimed to explore students' experiences with receiving incorrect answers from the AI, the difficulties they faced reading English texts without technological assistance, and their level of awareness of the accuracy of the information provided by Dola AI. Interviews were conducted in Indonesian so students could express themselves comfortably. Each interview lasted approximately 5 to 10 minutes and was conducted outside of class hours to avoid disruption. With permission from the participants, the interviews were audio-recorded for accurate transcription, and the researcher also took written notes during the interview.

Table 1. List of interview questions

No	Question	Indicators Excavated
1	Why did you choose to use Dola AI to do your English reading assignments?	Reasons for selection, perceived benefits, ease of access
2	What do you feel and do when Dola AI is experiencing an error or cannot be used?	Emotional reactions (anxiety, panic), alternative behaviors
3	Do you always believe in the answers?	Level of confidence, answer verification strategies
4	What difficulties do you experience most often when reading English texts without the help of Dola AI?	Vocabulary, grammar, and self-confidence constraints
5	In your opinion, how should teachers respond to your habits?	Expectations regarding the role of teachers, awareness of academic ethics

3.3 Data Analysis

The data in this study will be analyzed using thematic analysis to systematically identify and interpret patterns related to students' reliance on AI-assisted tools (Braun & Clarke, 2006). The analysis begins with data familiarization, where the researcher repeatedly read interview transcripts and observation notes to gain a deeper understanding of the data. This is followed by an initial coding process, where meaningful data segments are labeled based on their relevance to students' use of AI in reading comprehension tasks.

After coding, the researcher organizes the codes into broader categories to develop potential themes, such as patterns of reliance, students' responses to AI errors, and challenges in independent reading. These themes are then carefully reviewed and refined to ensure they align with the study's focus and research questions. Each theme is clearly defined and

interpreted to reflect the underlying meaning of the data. Finally, the findings are presented in a descriptive narrative, supported by direct quotes from participants to enhance the credibility and authenticity of the analysis (Lincoln & Guba, 1985).

4. Results

This section presents the result of the study based on the data collected through semi-structured interviews with 10 students at State Junior High School 9 Satap Tondano. The results are organized into four main themes that emerged from the thematic analysis of the interview transcripts, following the procedures outlined of Braun and Clarke (2006). The participants of this study were 10 students from Grades 7 and 8 of State Junior High School 9 Satap Tondano. The selection was based on purposive sampling criteria, which required that participants owned a mobile phone and actively used Dola AI for English reading comprehension tasks. Based on their responses during the interviews, the researcher identified varying levels of dependence on Dola AI. Participants P2 and P3 were categorized as highly dependent because they explicitly stated that they cannot understand English texts without AI and experience panic when AI is unavailable. Participants P1, P4, P5, P6, and P7 were categorized as moderately dependent, as they use AI for convenience and speed but can still function when AI is inaccessible, although with some difficulty. Participants P8, P9, and P10 were categorized as having low dependence or being independent learners, as they prefer to understand texts on their own and use AI only as a last resort, if at all.

a. Patterns of AI Dependence

The participants of ten, researchers identified three patterns of dependency on Dola AI. First, high dependency was experienced by 20% of students (P2 and P3). Students in this category stated they could not understand English texts without AI assistance. They immediately opened the Dola AI application as soon as the teacher gave them reading assignments, without attempting to read the original text first. AI was no longer a tool, but rather a primary need for completing assignments. Second, moderate dependency was experienced by 50% of students (P1, P4, P5, P6, and P7). Students in this category used AI because it was easier and faster than thinking on their own. However, they could still function without AI, albeit with difficulty, and some only used AI when the text was difficult. Third, low dependency, or independent learners, was experienced by 30% of students (P8, P9, and P10). Students in this category preferred to understand texts on their own and only used AI as a last resort. They expressed higher confidence in their reading abilities than the other groups.

b. Responses to AI Errors and Inaccessibility

Students' responses to AI errors or incompetence varied significantly depending on their level of dependency. Students with high dependency displayed strong negative emotions such as panic, frustration, and confusion when the AI failed. They tended to stop working on assignments and passively wait until the internet connection was restored. The most concerning behavior was when students copied error messages as their answers, indicating a complete failure in digital literacy and an inability to distinguish valid information from system notifications. Students with moderate dependency responded more passively, repeating the same questions over and over without changing their strategy. They spent five to ten minutes simply retyping the same questions to no avail. Meanwhile, independent students showed a more adaptive response. They switched to other strategies such as

searching on Google, using a dictionary, or Google Translate. In fact, some of them continued working without any technological assistance at all, demonstrating greater resilience and self-regulation.

c. Strategies for Verifying AI-Generated Answers

Strategies for verifying AI answers also varied based on students' level of dependency. Students with high dependency admitted to completely trusting the AI's answers because they didn't know how to check them. They copied answers without ever revisiting the original text, and in extreme cases, even copied error messages as valid answers. This suggests they didn't understand the AI's fundamental function as an answer-generating tool, and that error messages signaled a malfunction. Students with moderate dependency reported that they sometimes felt doubtful about the AI's answers, but they didn't take any action to verify them. They might pause after receiving an answer, but their doubts were never followed up by checking the original text, asking the teacher, or consulting a dictionary. This phenomenon is known as the critical awareness-practice gap, which is the gap between the awareness that an answer might be wrong and the ability to check it. Independent students exhibited the opposite behavior. They didn't completely trust the AI's answers, verified each answer with the original text, and often modified the AI's answers with their own words. They also used the AI selectively, for example, only to translate word-for-word rather than to derive the complete answer.

d. Perceptions of the Teacher's Role in AI Use

The final theme revealed diverse student views on how teachers should respond to the use of AI in the classroom. Some students argued that teachers should allow the use of AI but with clear boundaries. They acknowledged that AI is useful but still requires control. Conversely, others rejected restrictions and desired complete freedom in using AI. Still others acknowledged that they needed guidance from their teachers on how to use AI wisely, demonstrating an awareness of their own digital literacy limitations. Meanwhile, students who were more autonomous encouraged teachers to limit AI use and promote independent learning. Classroom observations indicated that teachers adopted a *laissez-faire* approach without clear rules, which may have reinforced students' reliance on AI. Students' attitudes toward AI use were self-reinforcing: students who believed in independent learning engaged in behaviors that strengthened their literacy skills, while students who believed that AI should not be restricted actually increased their reliance on AI.

5. Discussion

In direct response to the research question, how do students at State Junior High School 9 Satap Tondano rely on AI tools to complete reading comprehension tasks?, the study's findings reveal that students rely on AI in highly variable ways along a spectrum, ranging from complete dependence to self-directed learning, and this variation is shaped by three interrelated factors: students' self-efficacy, their digital literacy skills, and the lack of explicit guidance from teachers on responsible AI use. At one end of the spectrum are highly dependent students (20% of participants), who rely on AI by completely handing over the cognitive process of reading comprehension to the AI system they explicitly state that they cannot understand English texts without AI, immediately open Dola AI after receiving an assignment without first attempting to read the original text, and experience withdrawal symptoms such as panic, frustration, and task abandonment when AI is unavailable or

produces errors, with the most extreme manifestation being copying AI error messages such as “text not found” as their answers, indicating a complete breakdown in digital literacy and an inability to distinguish between valid information and system notifications. From the perspective of self-efficacy theory, these students exhibit low academic self-confidence, which prompts them to seek external help from AI tools rather than attempting independent reading, while from the perspective of cognitive load theory, they are no longer engaging in relevant cognitive load the mental effort devoted to constructing meaningful understanding because they have transferred all cognitive responsibilities to the AI system.

At the other end of the spectrum are independent learners (30% of participants), who rely on AI in the opposite way: they prefer to understand texts on their own, use AI only as a last resort or not at all, verify AI-generated answers by cross-referencing the original text and often modifying wording with their own, and continue working independently when AI is unavailable by resorting to adaptive strategies such as using Google Translate, a dictionary, or asking for the meaning of a particular word, demonstrating higher self-efficacy and effective self-regulation strategies (Schunk & Zimmerman, 2011) that embody the learning objectives of the Independent Curriculum, which emphasizes critical thinking, deep understanding, and independent learning. Between these two extremes are somewhat dependent learners (50% of participants), who rely on AI for convenience and speed but retain some ability to function independently; They use AI because it is easier and faster than thinking for themselves, sometimes doubt the AI’s answers but don’t know how to verify them, and respond to AI errors by passively retrying the same questions repeatedly without changing their approach, which the study refers to as the “critical awareness-practice gap” they have the capacity to recognize potential inaccuracies but lack the procedural knowledge or digital literacy skills to act on those doubts, meaning their critical awareness doesn’t translate into critical action. The findings also reveal that students’ perceptions of the teacher’s role further shape how they rely on AI some students ask for explicit guidance on the wise use of AI, others want clear boundaries, while self-directed students actively encourage teachers to limit AI use and promote self-directed learning. However, classroom observations indicate that teachers adopt a *laissez-faire* approach without active monitoring or restrictions, which may inadvertently normalize complete reliance on AI.

In conclusion, students at State Junior High School 9 Satap Tondano rely on AI tools in three different ways highly dependent, moderately dependent, and independent with the majority (70%) indicating some degree of dependence, but the presence of independent learners (30%) in the same class confirms that dependence on AI is not inevitable and can be reduced by building self-efficacy, teaching verification strategies, and providing clear expectations for appropriate AI use.

6. Conclusion

Based on thematic analysis of the interview data, four main themes emerged. First, varying patterns of dependence on AI. Second, responses to errors and the unavailability of AI. Third, strategies for verifying AI-generated answers. Fourth, students’ perceptions of the teacher’s role in using AI. Of the ten participants, two students (20%) were highly dependent, five students (50%) were moderately dependent, and three students (30%) were independent.

Students with high dependency cannot understand English texts without AI, experience panic and frustration when the AI errors, blindly trust the AI’s answers without verification, and stop working on assignments when the AI is inaccessible. The most extreme behavior is copying the error message as an answer, indicating low digital literacy and an inability to

distinguish valid information from system notifications. From the perspective of self-efficacy theory, these students have low academic self-confidence. From the perspective of cognitive load theory, they have delegated cognitive responsibility to the AI, preventing them from building meaningful understanding.

Students with moderate dependency use AI for convenience and speed, occasionally doubt the AI's answers but don't know how to verify them, and seek alternatives like Google Translate when the AI errors occur. This research refers to this phenomenon as the "critical awareness-practice gap," where students are aware of potential inaccuracies but lack the procedural knowledge to act. Independent students prefer to understand texts on their own, use AI only as a last resort, verify answers with the original text, and continue working when the AI errors occur. They embody the goals of the Independent Curriculum, which emphasizes critical thinking and independent learning.

This study also concluded that three factors influence the level of AI dependency: students' self-efficacy in English reading, digital literacy skills, and the lack of explicit guidance from teachers on responsible AI use. The presence of independent students in the same class confirms that AI dependency can be reduced with appropriate intervention.

In response to the research question, the level of dependence on Dola AI by students at State Junior High School 9 Satap Tondano was not uniform. The majority of students (70%) showed varying degrees of dependence on AI, but one-third were still able to read independently. Therefore, it can be concluded that AI dependency is not inevitable but can be influenced by internal factors (self-efficacy and digital literacy) and external factors (teacher guidance).

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Conflict of interest

The authors declare that there is no conflict of interest.

Authors' contribution

Dhea Fransisca Imelya: Conceptualization, Data curation, Funding acquisition, Formal analysis, Writing – original draft, Writing – review & editing.

Nihta Vera Freilly Liando: Formal analysis, Investigation, Methodology, Writing – review & editing.

Tirza Annette Kumayas: Investigation, Methodology, Writing – review & editing.

Statement of the use of AI

This study utilized artificial intelligence (AI) in the writing process, particularly to review the clarity of sentences, structure, and grammar. However, all final outputs were thoroughly

reviewed, verified, and validated by the authors prior to publication.

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