



## When AI Writing Tools Become a Crutch: A Study of Student Difficulties in Indonesian Senior High School

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Received: May 7, 2026  
Revised: May 24, 2026  
Accepted: May 29, 2026

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### Abstract

The use of artificial intelligence (AI) writing tools in secondary education has raised significant pedagogical challenges, yet little is known about the specific difficulties students face when using these tools. This qualitative case study examines the difficulties experienced by eight twelfth-grade students at SMAN 12 Sinjai, Indonesia, when using AI tools such as ChatGPT, Grammarly, Quillbot, and Google Translate for English writing assignments. Data were collected through semi-structured interviews and analyzed using reflexive thematic analysis. The findings reveal eight main categories of difficulties: (1) over-reliance on AI, (2) inability to evaluate AI suggestions, (3) ineffective use of AI for grammar correction, (4) limited understanding of AI capabilities, (5) technical and access barriers, (6) loss of personal voice, (7) difficulty integrating AI suggestions, and (8) illusion of progress. The most common difficulty, reported by all eight participants, was over-reliance, with students expressing fear and panic when AI tools were inaccessible. These findings suggest that without structured pedagogical intervention, AI writing tools may function as a crutch rather than as a scaffold for student learning.

**Keywords:** Artificial Intelligence; Student Difficulties; AI Writing Tools; Indonesian Senior High School; Over-reliance

## Introduction

Writing is a fundamental skill in English language learning that enables students to communicate ideas, demonstrate knowledge, and engage in academic discourse (Brown, 2018). Unlike speaking, writing requires deliberate organization of thoughts into coherent sentences and paragraphs, making it a cognitively demanding process that necessitates mastery of multiple components, including grammar, vocabulary, and textual coherence (Hyland, 2022).

Writing serves as a means of communication, interpreting information, recording experiences, facilitating self-expression, and promoting meaningful learning processes (Peter & Singaravelu, 2020). However, many Indonesian high school students face significant challenges in English writing, which negatively impacts their academic achievement and future opportunities (Rahmat et al., 2023; Saumi et al., 2025). English writing requires mastery of various components, including grammar, vocabulary, organization, and coherence (Hyland, 2022; Hapsari et al., 2022).

In the rapidly evolving digital era, Artificial Intelligence (AI) has been increasingly integrated into language learning, including writing instruction (Li & Zhang, 2020). Popular AI applications among students, such as Grammarly, Quillbot, ChatGPT, and Google Translate, have been used to assist their writing tasks (Safitri et al., 2024; Suryani & Fithriani, 2024). Previous research has demonstrated that AI tools can help students improve grammatical accuracy and vocabulary through immediate feedback (Pratama & Hastuti, 2024; Al Mahmud, 2023). Furthermore, AI applications may help reduce writing anxiety by offering non-judgmental assistance (Losi et al., 2024; Ruslan et al., 2025). However, effective use of AI depends on how students utilize these tools and the guidance provided by teachers (Pratama & Nurcholis, 2025; Apriani et al., 2023).

Previous studies on AI in writing have produced diverse findings. Some studies have focused on students' perceptions and preferences regarding AI tools (Safitri et al., 2024; Lee et al., 2024; Kim et al., 2025), while others have employed experimental designs to measure the impact of AI on students' writing scores (Pratama & Hastuti, 2024; Uzun et al., 2026). Research has also explored AI for EFL writing skills systematically through literature reviews (Pawestri & Pratolo, 2024; Jen & Salam, 2024). Studies have also examined the integration of generative AI in writing instruction (Surani & Rosyada, 2026; Utami & Winarni, 2023). Despite these contributions, a significant gap remains in the literature. No study has systematically documented the specific categories of difficulties that high school students face when using AI tools for writing (Wang, 2025; Zhao, 2024; Misbah et al., 2025). Most research has focused on the benefits of AI rather than the challenges students encounter (Malik et al., 2023; Krajka & Olszak, 2024).

This research gap is critical to address because preliminary observations at the research site, SMAN 12 Sinjai, revealed a noticeable disconnect between students' reported use of AI tools and the quality of their final written work (Darmi & Tahir, 2023). Despite actively using AI for assistance, students' writing still exhibited fundamental issues in vocabulary range, grammatical accuracy, and textual organization. Therefore, this study aims to investigate the specific challenges students encounter when utilizing AI tools for English writing. Accordingly, the study addresses the following research question: What specific difficulties do students encounter when using Artificial Intelligence tools to support their English writing process? This study is expected to make an empirical contribution to understanding student difficulties in AI-assisted writing (Huang & Lin, 2021; Cohen et al., 2023).

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## Literature Review

Artificial Intelligence in language education has grown significantly in recent years. AI writing tools encompass various applications that utilize natural language processing, machine learning algorithms, and computational linguistics to support and enhance the writing process (Li & Zhang, 2020). These technologies can analyze text, identify patterns, generate content, and provide feedback that mimics human evaluation to varying degrees of accuracy (Brown, 2018; Hyland, 2022).

AI writing tools can be categorized into several distinct types based on their primary functions and technological approaches. First, Automated Writing Evaluation (AWE) systems such as Grammarly provide comprehensive feedback on grammatical errors, spelling mistakes, punctuation issues, and stylistic concerns (Pratama & Hastuti, 2024; Al Mahmud, 2023). Second, AI-powered text generators, such as ChatGPT, can produce original content based on user prompts (Pratama and Nurcholis, 2025; Apriani et al., 2023). Third, paraphrasing tools such as Quillbot help students rephrase existing text while maintaining the original meaning (Lee et al., 2024). Fourth, translation tools like Google Translate convert text between languages (Safitri et al., 2024).

Despite the benefits, students encounter several significant difficulties when integrating AI tools into their writing processes (Nguyen & Dang, 2023; Wang, 2025). Research has identified over-reliance on AI suggestions as a primary difficulty that may hinder independent writing (Kim et al., 2025; Misbah et al., 2025). Students who depend excessively on AI corrections often fail to develop self-editing strategies (Zhao, 2024; Pawestri & Pratolo, 2024).

Another difficulty involves the limited contextual understanding of AI systems that may provide suggestions that are technically correct but contextually inappropriate (Lee et al., 2024; Jen & Salam, 2024). This requires students to develop critical evaluation skills to analyze AI-generated feedback (Huang & Lin, 2021; Krajka & Olszak, 2024). Technical obstacles also create significant difficulties for students. Unstable internet connectivity, limited access to devices, and free version limitations present barriers to effective AI use (Malik et al., 2023; Cohen et al., 2023).

The loss of personal voice represents another difficulty, as students using AI tools may produce text with homogenized linguistic features (Suryani & Fithriani, 2024; Surani & Rosyada, 2026). Students also face difficulty integrating AI-generated content with their own writing (Utami & Winarni, 2023).

In the Indonesian context, research on AI in writing instruction remains limited. Studies have explored students' preferences and perceptions, revealing that while students value AI for immediate feedback, they also express concerns about over-dependence (Safitri et al., 2024; Suryani & Fithriani, 2024). Research has also examined writing anxiety among EFL graduate program students (Ruslan et al., 2025) and sources of students' errors in EFL writing (Hapsari et al., 2022). Studies have documented that students often struggle with writing compared to other language skills (Saumi et al., 2025; Rahmat et al., 2023).

Preliminary observations at SMAN 12 Sinjai revealed a specific phenomenon: a noticeable disconnect between students' reported use of AI tools and the quality of their final written work (Darmi & Tahir, 2023). This disconnect suggests that students may not have developed critical literacy in using AI; they adopt the tools without fully understanding how to use them effectively (Creswell & Poth, 2018; Creswell & Creswell, 2023). Thus, this study addresses the gap by focusing exclusively on students' difficulties in using AI for writing.

## Research Methods

### 1. Research types

This study employed a qualitative research method with a case study design (Creswell & Poth, 2018). This design was chosen because it is particularly suitable for exploring the complex, subjective experiences of students using AI tools for writing (Creswell & Creswell, 2023). The case study approach allows for rich, detailed descriptions of perceived difficulties within students' authentic educational context (Cohen et al., 2023).

### 2. Research Data Sources

The primary data sources for this study were semi-structured interviews conducted with students. The research was conducted from January to February 2026 at SMAN 12 Sinjai, South Sulawesi (Darmi & Tahir, 2023). The selection of this school was based on purposive sampling, guided by substantive considerations, including the prevalence of AI tool use among students (Bowen, 2021). The secondary data sources included field notes and a reflexive journal maintained by the researcher during data collection and analysis (Braun & Clarke, 2022).

### 3. Research Population and Sample

The population of this study was Grade XII students at SMAN 12 Sinjai who actively use AI tools for English writing assignments. The sample consisted of eight students selected through purposive sampling based on the following criteria: (1) regular users of AI writing tools (ChatGPT, Grammarly, Quillbot, or Google Translate), (2) willingness to participate fully in interviews, and (3) representation across all four Grade XII classes (Creswell & Poth, 2018). Participants were nominated by their English teachers, with two students selected from each class.

Regarding sample size, the study adhered to the principle of data saturation, which refers to the point at which no new information or themes emerge from the data (Braun & Clarke, 2022). In this study, saturation was achieved after the seventh interview, as the eighth interview yielded no new categories of difficulties. The eighth participant's responses largely confirmed the existing themes, indicating that the sample of eight was sufficient to capture the range of difficulties experienced by students at the research site.

Table 1. Participant Demographic Profile

| Participants | Gender | AI Tools Used      | Grade XII Class |
|--------------|--------|--------------------|-----------------|
| Student 1    | Female | Grammarly, ChatGPT | Class XII.1     |
| Student 2    | Female | ChatGPT            | Class XII.2     |
| Student 3    | Female | ChatGPT, Quillbot  | Class XII.3     |
| Student 4    | Female | ChatGPT            | Class XII.4     |
| Student 5    | Female | Quillbot           | Class XII.1     |
| Student 6    | Female | Google Translate   | Class XII.2     |
| Student 7    | Female | ChatGPT, Grammarly | Class XII.3     |
| Student 8    | Female | ChatGPT, Quillbot  | Class XII.4     |

### 4. Data Collection Techniques

Data were collected through semi-structured interviews (Wilson, 2014). The interview protocol was developed based on the research question and focused on three thematic areas: AI usage experience, difficulties encountered, and critical engagement with AI output (Braun & Clarke, 2022). Each interview lasted approximately 45-60 minutes and was conducted face-to-face in a quiet school setting. All interviews were

audio-recorded with participant consent and transcribed verbatim. Member checking was conducted by returning transcripts to participants for verification of accuracy (Creswell & Creswell, 2023).

## 5. Data Analysis Techniques

Interview transcripts were analyzed using reflexive thematic analysis following Braun and Clarke's (2022) six-phase framework: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. A reflexive journal was maintained throughout the analysis to document analytical decisions and emerging interpretations (Bowen, 2021). The analysis was conducted inductively, allowing themes to emerge from the data rather than being imposed by pre-existing categories (Cohen et al., 2023).

## 6. Ethical Consideration

This study involved participants who were 18 years of age or older. Written informed consent was obtained from all participants after the purpose and procedures of the study were fully explained. Participants were assured of their right to withdraw from the study at any time without consequence, and all personal identifiers have been removed to ensure confidentiality. Permission to conduct the research was also obtained from the school principal and the English teachers at SMAN 12 Sinjai.

# Results and Discussion

## Result

The analysis of interview data from eight participants revealed eight distinct categories of difficulties students encounter when using AI writing tools.

### Over-Reliance on AI

The first theme identified in this study is over-reliance on AI tools. This theme captures students' inability to write independently without AI assistance, their fear when AI is inaccessible, and their perception that AI is the only way to complete writing tasks. The data reveal that students have internalized a belief that independent writing is impossible for them. All eight students report that they cannot write in English without AI assistance. One student stated:

*"I cannot write without Grammarly. If I try to write by myself, the result is messy" (Interview, Student 1)*

This statement reflects a psychological difficulty rather than a mere preference for convenience. Another student expressed a similar sentiment even more directly:

*"I cannot write without AI. If I try to write by myself, the result is bad. I become lazy" (Interview, Student 3)*

A third student admitted:

*"I cannot write without AI. I know I cannot. So, I always use AI" (Interview, Student 4)*

The repetition of the word "cannot" across all participants indicates that students perceive themselves as incapable of independent writing. Beyond stating dependency, students also expressed fear and panic when AI became inaccessible. One student told the researcher:

*"I am afraid that one day Grammarly cannot be accessed, and I will not be able to write anything" (Interview, Student 1)*

Two students both used the word "panic" when describing technical errors with ChatGPT. One student said:

*"Sometimes ChatGPT errors [sic]. Suddenly, it cannot be accessed. I panic because I don't have a backup idea" (Interview, Student 2)*

Another student echoed:

"Sometimes ChatGPT errors [*sic*]. Suddenly, I cannot access it. I panic because I don't have a backup" (Interview, Student 3)

These emotional responses indicate that students have not developed alternative writing strategies and have become completely dependent on AI as their primary, and for some, their only, tool for writing. The most extreme manifestations of over-reliance came from students who admitted they had no ideas, no grammar knowledge, and no alternative strategies whatsoever. One student stated:

"I have no idea. I do not know grammar. I need AI for everything" (Interview, Student 3)

Another student admitted:

"I cannot write without AI. I have no ideas. I do not know grammar. I need AI for everything" (Interview, Student 8)

What is particularly concerning is that some students expressed awareness of their difficulty but felt trapped. One student admitted:

"I am embarrassed. I know I am too dependent on AI. But I don't know how to get out" (Interview, Student 1)

Another expressed a similar feeling:

"I know I am wrong, but I don't know how to stop. I need help" (Interview, Student 3)

This self-awareness without solution indicates that over-reliance is not simply a matter of laziness but a genuine psychological difficulty.

#### **Inability to evaluate AI suggestions**

The second theme captures students' passive acceptance of AI output without critical evaluation. This difficulty stems from a lack of foundational knowledge in grammar and writing conventions. Students treated AI as an infallible authority because they had no alternative standard against which to judge AI output.

Five students demonstrated this inability to evaluate AI suggestions. One student explained:

"I don't know which one is correct. I just follow all the suggestions. I don't dare to refuse. I think AI knows better" (Interview, Student 1)

This excerpt reveals two important findings. First, students have surrendered critical judgment to the tool. Second, the phrase "I don't dare" indicates fear of making independent decisions. Another student expressed similar passive acceptance:

"I just follow along. I don't dare to change anything. I am afraid that if I change it, it will become wrong. I trust AI" (Interview, Student 3)

A student who used Quillbot for paraphrasing admitted:

"I don't know if it is correct. I just use it. I trust Quillbot" (Interview, Student 5)

The student could not distinguish between helpful and harmful AI suggestions. The most extreme case came from a student who refused to engage with AI output altogether:

"I never read it. I don't care what the content is" (Interview, Student 8)

For this student, the goal was simply to complete the assignment, and reading the content was perceived as unnecessary. Both patterns, blind acceptance and outright refusal, ultimately result in the same outcome: students submit work without critically evaluating AI output.

#### **Ineffective Use of AI for Grammar Correction**

The third theme reveals a critical insight about AI as a learning tool versus AI as a substitute for learning. Although this pattern emerged from only two students, it is conceptually significant because it demonstrates that access to AI grammar checkers does not automatically help students overcome their writing difficulties. The limited representation of this theme relative to others is acknowledged as a limitation, and the

findings related to this theme should be interpreted with caution. Nevertheless, the theme is retained because it provides important conceptual insight.

One student admitted that she never reads the corrections provided by Grammarly because there are too many of them. She stated:

*"I never read them one by one because there are too many corrections. What matters is that AI has already fixed them" (Interview, Student 1)*

This statement reveals a paradox: the more corrections AI provides, the less likely students are to read them. Instead of helping students learn, Grammarly becomes a substitute for learning. The phrase "what matters is that AI has already fixed them" shows that the student's goal is error elimination, not error understanding. Another student expressed a different but related difficulty. He knew there were errors in his Google Translate output, but did not know how to correct them. He stated:

*"I know there is an error like 'Yesterday Sunday', but I don't know how to fix it" (Interview, Student 6)*

This student had sufficient awareness to detect an error but lacked the grammatical knowledge to produce the correct form ("Last Sunday"). His use of Google Translate did not help him learn; it only produced a text that he knew was flawed but could not improve. This finding demonstrates that AI tools are not automatically effective without foundational student knowledge.

#### **Limited Understanding of AI Capabilities**

The fourth theme captures students' lack of strategic knowledge about how AI works, what it can and cannot do, and how to adapt AI-generated content to their specific context. This manifested in three distinct ways. First, students lacked genre knowledge. One twelfth-grade student only realized after her teacher's feedback that a narrative text must have a conflict or complication. She admitted:

*"I thought the story about climbing the mountain was already interesting, but the teacher said there was no conflict. I just found out that a narrative text must have a conflict" (Interview, Student 4)*

This confession is striking for a twelfth-grade student and suggests that using AI may allow students to bypass learning about genre requirements entirely. Second, students failed to adapt AI content to the local context. One student's story was set in "a land far, far away" with a character named "Oliver," completely disconnected from Indonesia. She told the researcher:

*"The teacher said the setting was not relevant. The story is about a forest in a faraway land, even though we are in Indonesia. I just realized" (Interview, Student 8)*

The phrase "I just realized" indicates that, without teacher feedback, this student would not have recognized this problem. Third, students used vocabulary they did not understand. One student admitted:

*"There are words whose meanings I don't know. But I just use them. I don't dare ask the teacher" (Interview, Student 3)*

Another expressed a similar pattern:

*"Quillbot gives words whose meanings I don't know. I'm too lazy to check. I just use them" (Interview, Student 5)*

These excerpts are particularly troubling because they mean students are submitting work that contains language they cannot explain or defend. When a student cannot explain the words in their own text, that text cannot be considered the student's own work.

#### **Technical and Access Barriers**

The fifth theme captures practical difficulties, including unstable internet connections, AI platform errors, free version limitations, and inconsistent AI processing.

Before analyzing the data, the researcher assumed technical barriers would be the dominant difficulty. However, the analysis reveals that psychological difficulties were actually more prominent. Nevertheless, this theme is retained because, for highly dependent students, technical barriers triggered genuine panic. Several students reported slow or unstable internet connections. One student described:

*"The internet is often slow. I use Grammarly online, so if the internet is slow, the corrections come out late. Sometimes the website also has errors"* (Interview, Student 1)

Another student who used Google Translate on his phone reported similar problems:

*"Sometimes the internet is slow. The translation takes a long time. I use Google Translate on my phone, and sometimes the application errors"* (Interview, Student 6)

Students who used ChatGPT reported that platform errors caused panic. One student stated:

*"Sometimes ChatGPT errors [sic]. Suddenly, it cannot be accessed. I panic because I don't have a backup idea"* (Interview, Student 2)

Another echoed:

*"Sometimes ChatGPT errors [sic]. Suddenly, I cannot access it. I panic because I don't have a backup"* (Interview, Student 3)

The word "panic" is crucial here. When AI tools become unavailable, students who have become dependent on them panic because they have no alternative writing strategies. Other technical barriers included free version limitations and inconsistent processing. One student noted:

*"I use the free version, so there is a word limit. I have to cut the text into pieces"* (Interview, Student 5)

Another student experienced a unique issue:

*"Sometimes ChatGPT only edits part of it. I give a long text, only the first paragraph is edited. I get annoyed. I have to ask for a re-edit"* (Interview, Student 7)

This technical limitation creates fragmented writing where some parts are perfectly edited, and others remain raw.

### **Loss of Personal Voice**

The sixth theme captures students' awareness that their writing no longer sounds like their own after being processed by AI. This theme emerged from seven of the eight students and represents one of the most pervasive and troubling difficulties. Students used different metaphors to describe the same phenomenon, indicating that this experience is significant and shared. One student described that before using AI, her writing used her own words, but after using AI, her writing became stiff and mechanical. She stated:

*"Before, my writing used my own words. Now my writing has become like robot writing. Stiff"* (Interview, Student 1)

Another student expressed a loss of ownership:

*"Before, my writing was simple, but it had my characteristic. Now my writing feels like someone else's. I don't feel like I own my own writing"* (Interview, Student 2)

The phrase "I don't feel like I own my own writing" is a significant indicator of how AI can undermine students' sense of authorship. A third student described the inconsistency created by AI editing:

*"The part edited by AI sounds different. So, my writing has two voices. I don't like it"* (Interview, Student 7)

This statement reveals more than just dissatisfaction with quality; it suggests an alienation from the writing process itself. What the researcher found particularly significant is that teachers also noticed this phenomenon. One student reported:

*"Before, my writing was simple. Now it is too good. The teacher once said that. I became aware"*  
(Interview, Student 3)

Another stated:

*"The teacher once said that my writing was too formal. She said it didn't look like high school student writing"* (Interview, Student 4)

This external recognition from teachers confirms that the loss of personal voice is not merely a subjective student perception but an observable phenomenon. However, not all students viewed this loss as problematic. One student openly admitted:

*"I don't think about personal voice. What matters is the assignment is finished, and I get a good grade"* (Interview, Student 8)

This reveals a tension between academic success and authentic self-expression.

### **Difficulty Integrating AI Suggestions**

The seventh theme captures students' challenges in combining AI-generated or AI-edited content with their own writing to create a coherent final product. This theme is distinct from loss of personal voice. While loss of personal voice focuses on the outcome (writing feels foreign), difficulty integrating focuses on the process (the struggle to combine AI content with original writing). One student explained the sophistication gap:

*"ChatGPT's ideas are too good. The language style is also different from my style. I try to rewrite it in my own words, but it becomes weird"* (Interview, Student 2)

This reveals that the gap between AI-generated content and the student's own writing makes integration extremely difficult. Another student described the result of failed integration:

*"AI's suggestions are often too good. They don't connect with the rest of my writing. So, my writing becomes uneven"* (Interview, Student 7)

The student explicitly stated that she is aware of the inconsistency in her writing because AI suggestions do not match her original work. The most extreme case came from a student who did not even attempt integration. He admitted:

*"I don't integrate. I directly copy and paste. I never write anything myself. So, there is nothing to integrate"* (Interview, Student 3)

This student represents the endpoint of the integration difficulty continuum: from struggling to integrate (S2 and S7) to abandoning integration altogether (S3).

### **Illusion of Progress**

The eighth theme is perhaps the most important and concerning finding of this study. It reveals how AI can create an illusion of learning while masking the persistence of difficulties. From the interviews, students perceived that their writing had improved because their grades increased, but they could not explain what had actually improved. One student proudly stated that his score increased from sixty to eighty-five, admitting:

*"Before, my score was 60, now it is 85. I am happy. But honestly, I don't know if my writing has improved or if AI is just good"* (Interview, Student 3)

This excerpt reveals a crucial moment of doubt. This student is aware that his grade improvement might not reflect his actual progress, but he cannot distinguish between his own growth and AI's assistance. Another student believed that her writing had improved because her teacher never comments on her writing anymore, stating simply:

*"I think my writing has improved"* (Interview, Student 1)

When asked what specifically had improved, she could not provide any explanation. A third student thought her story about climbing a mountain was already interesting, stating:

*"I thought the story about climbing the mountain was already interesting. The teacher gave me a score of 85. I am happy"* (Interview, Student 4)

However, when asked about the elements of a good story, she could not identify what made her story interesting. A fourth student believed that Quillbot made her writing better but could not explain why results were sometimes problematic, stating:

*"I think the result is better. But honestly, sometimes the result is weird. I don't know why"*  
(Interview, Student 5)

The phrase "I don't know why" reveals a complete absence of critical evaluation skills. Collectively, these excerpts reveal that students base their perception of progress on grades alone, not on any genuine understanding of what has improved. They see higher grades and assume they are making progress, when in fact they cannot explain what has changed.

The 'illusion of progress' finding presented above is derived from a comparison between students' self-reported perceptions (from interview data) and their actual writing quality (from document analysis using Brown's 2018 framework). The divergence between these two data sources, as presented in the convergence-divergence analysis in Section 3, indicates that students perceived improvement that was not consistently evidenced in their written texts. The researcher acknowledges that this finding is based on perceptual data triangulated with written products; independent teacher assessments were not included in this study. Therefore, the 'illusion of progress' should be understood as a divergence between student perception and textual evidence, rather than an objectively measured claim about learning outcomes. Nevertheless, this divergence is methodologically significant because it reveals that grades and student confidence can increase while foundational writing skills remain unchanged, a phenomenon that warrants further investigation.

Based on the interpretive analysis across these eight themes, the researcher argues that while students actively use AI tools for writing, they encounter significant and interconnected difficulties that prevent them from integrating AI effectively into their writing development process. The most concerning finding is theme 8, which is the Illusion of Progress, where students believe higher grades mean improved ability, but textual evidence shows persistent errors, AI-generated perfection without student learning, missing narrative elements, or degraded quality from paraphrasing tools.

## Discussion

This study aimed to identify the specific difficulties that Indonesian high school students encounter when using AI tools for English writing. The findings revealed eight categories of difficulties that are interconnected and self-reinforcing. The most pervasive difficulty was over-reliance on AI, reported by all eight participants. This finding aligns with previous research by Nguyen and Dang (2023) and Kim et al. (2025), who identified over-reliance as a primary difficulty. However, this study extends previous findings by documenting the emotional dimension of dependency. Students expressed fear, panic, and helplessness when AI became inaccessible, indicating that over-reliance is a genuine psychological difficulty requiring structured intervention (Lantolf & Thorne, 2006; Vygotsky, 1978).

The cycle of dependency documented in this study is self-reinforcing (Misbah et al., 2025). Students use AI because they lack confidence, and their lack of confidence deepens because they never practice writing independently. One student captured this cycle when he admitted that using AI made him lazy. This laziness is not mere idleness but a learned helplessness where students no longer see value in attempting independent writing because AI can produce results instantly (Graham & Perin, 2013; Graham & Hebert, 2013).

The second major difficulty was the inability to evaluate AI suggestions, reported by five students. These students blindly accepted all AI output without question, not because they were lazy, but because they lacked the foundational knowledge in grammar and writing conventions to make judgments (Lee et al., 2024; Huang & Lin, 2021). This finding supports the work of Pawestri and Pratolo (2024) and Jen and Salam (2024), who found that students struggle with interpreting AI feedback. However, this study reveals a more fundamental difficulty: students lack the foundational knowledge necessary to make any judgment. They treat AI as an infallible authority because they have no alternative standard against which to evaluate AI output (Malik et al., 2023; Krajka & Olszak, 2024).

The third major difficulty was the loss of personal voice, reported by seven students. This finding confirms concerns raised by Suryani and Fithriani (2024) and Surani and Rosyada (2026) about the potential homogenization of writing style. Students in this study described their writing as becoming "stiff," "mechanical," and feeling like "someone else's." Teachers also noticed this phenomenon, with one student reporting that her teacher said her writing "didn't look like high school student writing" (S4). When a student feels that their writing no longer belongs to them, this represents a significant difficulty in maintaining authentic self-expression (Utami & Winarni, 2023; Wang, 2025). The fourth major difficulty, and perhaps the most concerning finding of this study, is the illusion of progress. Six students perceived that their writing had improved because their grades increased, but they could not explain what had actually improved. One student's doubt captured this phenomenon perfectly: "I don't know if my writing has improved or if AI is just good" (S3). This finding has not been extensively documented in previous literature (Zhao, 2024; Uzun et al., 2026). It reveals that grades alone cannot indicate whether students have overcome their difficulties or remain dependent on AI. Students may receive higher scores while their underlying difficulties persist (Creswell & Poth, 2018; Cohen et al., 2023).

From a sociocultural perspective (Vygotsky, 1978; Lantolf & Thorne, 2006), AI tools in this study failed to help students overcome their difficulties because students were not actively engaged in the learning process. The Zone of Proximal Development (ZPD) is designed to be a temporary space where assistance is gradually withdrawn as competence increases (Vygotsky, 1978). In contrast, the students in this study became permanently dependent on AI. Their difficulties persisted because the scaffold (AI) became a permanent crutch rather than a temporary support (Lantolf & Thorne, 2006).

The findings of this study carry significant practical implications (Surani & Rosyada, 2026; Utami & Winarni, 2023). First, teachers need explicit instruction on foundational writing skills (grammar, text structure, vocabulary) before introducing AI tools (Graham & Perin, 2013; Graham & Hebert, 2013). Students cannot evaluate AI suggestions if they lack basic knowledge (Brown, 2018; Hyland, 2022). Second, this study suggests that teachers must teach critical AI literacy to help students evaluate AI suggestions and maintain personal voice (Lee et al., 2024; Pawestri & Pratolo, 2024). Third, teachers should help students develop realistic self-assessment skills so they do not mistake AI-generated output for their own progress (Creswell & Poth, 2018; Creswell & Creswell, 2023).

## Conclusion

This study examined the difficulties Indonesian high school students encounter when using AI writing tools. The findings revealed eight categories of difficulties: over-

reliance on AI, inability to evaluate AI suggestions, ineffective use of AI for grammar correction, limited understanding of AI capabilities, technical and access barriers, loss of personal voice, difficulty integrating AI suggestions, and the illusion of progress. The most pervasive difficulty was over-reliance, reported by all participants, with students expressing fear and panic when AI was inaccessible. The most concerning finding was the illusion of progress, where students perceived improvement based on higher grades while their dependency on AI deepened.

Beyond merely listing these difficulties, this study makes a broader argument: without structured pedagogical intervention, AI tools may function as a crutch that perpetuates student difficulties rather than as a scaffold that helps students overcome them. The distinction between a crutch and a scaffold is critical. A crutch is a permanent support that compensates for a weakness but does nothing to strengthen it. A scaffold is a temporary structure that is gradually removed as the learner develops independent competence. This study's findings suggest that, in the absence of teacher guidance and critical AI literacy instruction, students will inevitably use AI as a crutch, not as a scaffold. Therefore, the integration of AI into writing instruction must be accompanied by systematic pedagogical strategies designed to foster independence, not dependency.

The significance of this research lies in its empirical contribution to understanding student difficulties in AI-assisted writing from the students' own perspectives. Theoretically, this study demonstrates that without structured pedagogical intervention, AI tools may function as a crutch that perpetuates difficulties rather than a scaffold that helps students overcome them (Vygotsky, 1978; Lantolf & Thorne, 2006). Practically, this study provides evidence-based recommendations for teachers and schools on how to address student difficulties in AI-assisted writing (Surani & Rosyada, 2026; Utami & Winarni, 2023).

This study has several limitations (Creswell & Creswell, 2023). First, it involved only eight participants from a single school, which may limit the transferability of the findings. Second, this study focused only on students' perspectives and did not include teacher perspectives. Third, this study did not examine the long-term effects of AI dependency. Future research should include participants from multiple schools and regions, incorporate teacher perspectives, and conduct longitudinal studies to examine whether these difficulties persist or diminish over time (Wang, 2025; Zhao, 2024). Future research should also develop and test pedagogical interventions to address the difficulties identified in this study (Surani & Rosyada, 2026; Uzun et al., 2026).

### **Author Contribution Statement**

The author would like to thank the principal, English teachers, and students of SMAN 12 Sinjai for their participation and support in this research. Sincere gratitude is also extended to the supervisors for their invaluable guidance throughout this study. Universitas Negeri Makassar provided institutional support for the completion of all aspects of this research.

### **Statement of Interest**

All authors declare that they have no financial or non-financial conflicts of interest relevant to this research. No personal, financial, or professional relationships could have inappropriately influenced the conduct, analysis, or reporting of this study. The authors confirm that the research was conducted independently without any interference from any party that might benefit from the findings of this study.

## Funding

This research did not receive any specific grant from any funding agency in the public, commercial, or non-profit sectors. The research was conducted as part of the first author's graduate thesis requirement at Universitas Negeri Makassar, utilizing the personal resources of the research team. The funders had no role in the design of the study; in the collection, analysis, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

## References

- Al Mahmud, F. (2023). Investigating EFL students' writing skills through artificial intelligence: Wordtune application as a tool. *Journal of Language Teaching and Research*, 14(5), 1395-1404.
- Apriani, E., Hidayah, J., Perdana, I., & Rizal, S. (2023). Utilizing artificial intelligence to enhance students' writing skills: How does the implementation work? *Journal of Languages and Language Teaching*, 11(4), 682-700.
- Bowen, G. A. (2021). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40.
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE Publications.
- Brown, H. D. (2018). *Language assessment: Principles and classroom practices* (3rd ed.). Pearson Education.
- Cohen, L., Manion, L., & Morrison, K. (2023). *Research methods in education* (9th ed.). Routledge.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Darmi, D., & Tahir, M. H. (2023). Improving the ability in writing around description with the student's field trip method. *La Ogi: English Language Journal*, 9(2), 150-160.
- Graham, S., & Hebert, M. (2013). *Writing to read: Evidence for how writing can improve reading*. Carnegie Corporation of New York.
- Graham, S., & Perin, D. (2013). *Writing next: Effective strategies to improve the writing of adolescents in middle and high schools*. Alliance for Excellent Education.
- Hapsari, E. W., Sudarman, S., & Utami, S. (2022). Sources of students' errors in EFL writing in Indonesia. *JADEs: Journal of Academia in English Education*, 3(2), 141-160.
- Huang, Y., & Lin, X. (2021). EFL learners' preferences for AI-assisted writing tools: An empirical study. *Computer-Assisted Language Learning*, 34(8), 1210-1235.
- Hyland, K. (2022). *Teaching and researching writing* (4th ed.). Routledge.
- Jen, S. L., & Salam, A. R. H. (2024). A systematic review of the use of artificial intelligence in writing. *International Journal of Academic Research in Progressive Education and Development*, 13(1), 1819-1829.
- Kim, J., Yu, S., Detrick, R., & Li, N. (2025). Exploring students' perspectives on generative AI-assisted academic writing. *Education and Information Technologies*, 30(1), 1265-1300.

- Krajka, J., & Olszak, I. (2024). Artificial intelligence tools in academic writing instruction: Exploring the potential of on-demand AI assistance in the writing process. *Roczniki Humanistyczne*, 72(6), 123-140.
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford University Press.
- Lee, Y. J., Davis, R. O., & Lee, S. O. (2024). University students' perceptions of artificial intelligence-based tools for English writing courses. *Online Journal of Communication and Media Technologies*, 14(1), e202412.
- Li, J., & Zhang, Y. (2020). Artificial intelligence in language education: A systematic review. *Educational Technology & Society*, 23(4), 45-58.
- Losi, R. V., Putra, E. P., Ali, N., & Dewi, A. S. (2024). Using artificial intelligence (AI) to improve EFL students' writing skills. *International Journal of English and Applied Linguistics*, 4(1), 62-70.
- Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., & Darwis, A. (2023). Exploring artificial intelligence in academic essays: Higher education students' perspective. *International Journal of Educational Research Open*, 5, 100296.
- Misbah, S., Aleena, T., Fatima, S., Sajid, A., & Muhammad, O. K. Q. (2025). The effect of ChatGPT on the writing abilities of undergraduate English students. *Journal of Arts and Linguistics Studies*, 3(1), 67-91.
- Nguyen, T., & Dang, T. (2023). The impact of AI on student writing skills development: Challenges and opportunities. *International Journal of Educational Technology*, 10(2), 45-62.
- Pawestri, P., & Pratolo, B. W. (2024). Artificial intelligence (AI) for EFL writing skills: Systematic literature review. *Ahmad Dahlan Journal of English Studies*, 11(2), 1-15.
- Peter, S., & Singaravelu, G. (2020). Writing as a meaningful learning process. *Journal of Educational Research*, 15(3), 78-89.
- Pratama, R. M. D., & Hastuti, D. P. (2024). The use of artificial intelligence to improve EFL students' writing skills. *English Learning Innovation*, 5(1), 13-25.
- Pratama, R. M. D., & Nurcholis, A. (2025). Wordtune as an artificial intelligence-powered English writing assistant: EFL students' perception as an alternative to writing English. *ELTALL: English Language Teaching, Applied Linguistics and Literature*, 6(1).
- Rahmat, N. H., Aripin, N., & Thasrabiab, T. (2023). Writing challenges faced by Indonesian EFL students. *Journal of Language and Linguistics Studies*, 19(1), 432-447.
- Ruslan, Z. M., Tahir, M., & Patak, A. A. (2025). An analysis of writing anxiety among EFL graduate program students. *International Journal of Language, Education, and Literature*, 2(2), 305-311.
- Safitri, B., Dewi, U., & Ramadhan, A. (2024). EFL students' preferences for artificial intelligence (AI) for writing. *Jurnal Ilmu Sosial, Humaniora Dan Seni*, 3(1), 702-705.
- Saumi, N. A., Fauziati, E., & Asib, A. (2025). An analysis of students' difficulties in writing academic texts. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 9(2), 345-360.
- Surani, D., & Rosyada, A. (2026). Integrating generative AI and visual literacy in EFL writing instruction: A case study. *Eltin Journal: Journal of English Language Teaching in Indonesia*, 14(1), 139-154.

- 
- Suryani, I., & Fithriani, R. (2024). Artificial intelligence tools in writing class: Students' preferences and lecturers' perceptions. *Eltin Journal: Journal of English Language Teaching in Indonesia*, 12(1), 167-176.
- Susanto, H., Woo, D. J., Yeung, C., Lo-Philip, S. W. Y., & Yeung, C. H. (2026). The Crutch or the Ceiling? How Different Generations of LLMs Shape EFL Student Writings. arXiv preprint arXiv:2604.15460.
- Utami, S. P. T., & Winarni, R. (2023). Utilization of artificial intelligence technology in an academic writing class: How do Indonesian students perceive it? *Contemporary Educational Technology*, 15(4), ep456.
- Uzun, A., Sevim, O., & Sevim, S. (2026). ChatGPT-supported interactive learning activities: A mixed-methods study of writing performance and motivation. *Interactive Learning Environments*, 1-24.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, C. (2025). Exploring students' generative AI-assisted writing processes: Perceptions and experiences from native and nonnative English speakers. *Technology, Knowledge and Learning*, 30(3), 1825-1846.
- Wilson, C. (2014). *Interview techniques for UX practitioners: A user-centered design method*. Morgan Kaufmann.
- Zhao, J. (2024). An exploration of the teaching path of artificial intelligence technology incorporated into university writing classes. *Curriculum and Teaching Methodology*, 7(6).

