Exploring ESL Students' Experiences with AI Tools in Learning Grammar

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ABSTRACT

This study explores the experiences of ESL (English as a Second Language) students in using AI tools to support grammar learning. With the rise of applications such as ChatGPT, Grammarly and Quillbot, students now have access to immediate feedback and assistance in their language development. This qualitative research adopts a phenomenological approach to understand the perceptions, benefits, and challenges faced by university-level ESL students. Semi-structured interviews were conducted with five students who regularly engage with AI tools in their grammar learning. Thematic analysis revealed three major themes: enhanced self-correction and feedback, increased motivation and confidence and concerns over dependency and misuse. These findings suggest that while AI tools offer significant support in grammar acquisition, guided integration into the learning process is essential to maximize their educational value. The study contributes to a deeper understanding of student-AI interaction and provides recommendations for educators and developers of AI-powered educational tools.

Keywords— ESL students; AI-assisted language learning; grammar acquisition; ESL; ChatGPT

INTRODUCTION

English grammar presents ongoing challenges for many ESL learners, particularly in academic and formal writing contexts. Mastering verb tenses, subject-verb agreement, prepositions, and complex sentence structures often requires repeated exposure, feedback, and guided practice. Traditional classroom instruction may not always provide sufficient opportunities for individualized feedback, especially in large or mixed-proficiency classes. As a result, students may continue to make recurring errors that fossilize over time. This issue is further compounded by learners' anxiety and low confidence when producing written texts in English, which can hinder their willingness to engage with grammar-focused activities [1].

In recent years, the landscape of language education has been transformed by the emergence of artificial intelligence (AI)-powered tools. Applications such as Grammarly, ChatGPT and Quillbot have become widely accessible to ESL learners. It offers real-time grammar correction, paraphrasing assistance and language feedback. These tools use natural language processing to analyze students' writing and generate context-sensitive suggestions for improvement. Unlike traditional grammar checkers, modern AI tools are more adaptive and capable of providing explanations that support learners' metalinguistic awareness. Their availability on multiple platforms has made it easier for students to use them in both formal educational settings and independent study ([2], [3], [4]).

While the technological capabilities of AI grammar tools are well-documented, less is known about how ESL students experience these tools in their daily learning. Exploring students' perceptions, feelings and strategies in using AI for grammar development provides valuable insights into how such tools impact their learning behaviours and outcomes. Understanding these experiences can help educators evaluate the effectiveness of AI tools not just from a technical perspective, but from a pedagogical and psychological one. A qualitative, phenomenological lens is particularly appropriate for capturing these subjective experiences. This study was conducted at a public university in Malaysia, where students are increasingly engaging with AI-powered writing support tools as part of their academic and language learning routines [5].

To further interpret how students engage with AI tools in grammar learning, this study is underpinned by the principles of Self-Regulated Learning (SRL). SRL emphasizes learners' active role in setting goals, monitoring progress, and reflecting on learning outcomes. In the context of AI-assisted grammar learning, SRL provides a useful lens to examine how students plan their writing, use AI feedback strategically, and evaluate their own grammatical progress. This theoretical perspective complements the phenomenological approach by framing students' experiences within broader patterns of autonomous learning and metacognitive control.

This study aims to explore the experiences of university-level ESL students who regularly use AI tools for grammar learning. The objectives are to identify how students use these tools, understand the benefits they perceive and uncover any challenges or limitations they encounter. The central research questions guiding this study are:

1. How do ESL students use AI tools to support their grammar learning?
2. What benefits do students perceive from using these tools in grammar learning?
3. What challenges or concerns do they encounter when using AI tools for grammar improvement?

LITERATURE REVIEW

AI tools have demonstrated notable effectiveness in improving grammar accuracy among ESL learners especially for those with lower proficiency levels or additional learning needs. [6] found that Indonesian university students using Grammarly and ChatGPT showed a 15% improvement in grammar accuracy, particularly among non-language majors. Similarly, [7] reported that children with learning disabilities using AI-based grammar tools achieved significantly higher grammar scores than peers using traditional methods, with a large effect size (Cohen's d = 0.84). In terms of user perception, [8] observed that learners found AI feedback tools not only accurate and helpful but also satisfying for learning grammar rules. Furthermore, [9] highlighted AI's ability to support mastery of complex grammar topics, such as non-finite verbs, outperforming traditional instructional methods. It is worth highlighting that AI-assisted feedback also boosts learner confidence and speaking fluency, as [10] emphasized in their study. These gains are echoed in perception-based research by [11], who noted increased motivation and satisfaction with tools like Grammarly. However, ([12], [13]) cautioned that despite these benefits, current AI tools may still miss complex grammar issues and require human oversight. Overall, the literature suggests that AI grammar tools significantly enhance accuracy and learner outcomes but are most effective when integrated alongside human instruction.

Students generally perceive AI tools like Grammarly, ChatGPT and QuillBot as valuable scaffolding tools in their grammar learning journey. It enhances both writing quality and learner confidence. Grammarly is especially praised for its reliable grammar corrections and ability to improve clarity. On the contrary, QuillBot is seen as effective in paraphrasing and sentence restructuring. These skills are crucial for academic integrity and fluency ([14], [15]). ChatGPT receives positive feedback for its ability to generate ideas and improve sentence flow. It aids students in the early stages of drafting ([16], [17]). These tools have also been associated with an increase of learner confidence and reduced writing anxiety among students who struggle with grammatical accuracy ([18], [14]). From an educator's perspective, tools like QuillBot and ChatGPT are seen as valuable supplements that enhance academic writing structure and support autonomous learning ([19], [16]). However, concerns about over-reliance are prominent. Students worry that frequent AI use may hinder critical thinking and originality. It could potentially reduce long-term grammar retention ([17], [14]). While AI can foster independence, this benefit is maximized when integrated with human instruction and digital literacy training [20]. Ethical concerns also arise, with students expressing the need for proper guidance to avoid plagiarism and misuse ([21], [22]). Therefore, the dual nature of AI tools can be perceived as empowering yet potentially limiting, depending on how they are used within the grammar learning context.

Despite their benefits, AI tools pose challenges related to overreliance, passive learning, and uncritical acceptance of suggestions. Research has shown that students may default to AI-generated corrections without fully understanding the underlying grammar rules, which undermines long-term learning and cognitive engagement [23]. [24] warned that habitual acceptance of inaccurate suggestions could lead to diminished trust

in AI tools, as students sometimes struggle to evaluate the validity of AI feedback. [25] noted that ESL students relying heavily on AI during peer review produced shorter, more formulaic responses and were less inclined to ask reflective questions. These findings underscore the risk of shallow learning when AI tools are employed without rigorous oversight. To counter these issues, researchers recommend integrating AI literacy into writing instruction to promote thoughtful, reflective use of grammar tools and to encourage learners to evaluate and discuss AI-generated feedback critically.

There is a noticeable gap in the existing literature concerning qualitative research, particularly phenomenological studies, that explore the lived experiences of students using AI tools for writing and grammar development. Although many recent studies have shown the effectiveness of AI tools using quantitative approaches such as test scores, usage analytics, and satisfaction surveys ([26], [27]), they often fail to capture the emotional, cognitive and behavioural processes behind students' use of these technologies. For example, [28] acknowledged that students sometimes feel supported by AI and at other times feel displaced by it, but did not explore in depth how these emotions shape their learning autonomy or sense of academic identity. [29] demonstrated how phenomenological inquiry can reveal meaningful shifts in students' motivation and self-concept, although her work did not focus specifically on AI-assisted grammar learning. Similarly, [30] provided early insights into how students navigate AI use while maintaining academic independence, yet such studies remain limited in number. Moreover, existing qualitative research rarely examines differences in student experiences across disciplines or educational backgrounds. This underscores the need for richer, experience-centered inquiry that can illuminate how students personally interpret AI-generated feedback, adjust their learning habits, and negotiate the boundaries between digital assistance and academic authenticity.

SRL provides a useful lens for examining how learners engage with AI-assisted grammar tools. [31] Zimmerman's model emphasizes three phases; forethought, performance and self-reflection. These phases stress how learners set goals, apply strategies and evaluate outcomes. Feedback is central to this cycle, as it guides adjustments and promotes metacognitive awareness [32] In language learning, SRL has been linked to greater autonomy, persistence and motivation. It enables learners to take ownership of their progress. Applied to AI tools such as Grammarly or ChatGPT, SRL highlights how students use real-time feedback not only to correct errors but also to monitor progress and refine strategies. At the same time, overreliance on AI may indicate gaps in metacognitive regulation, reinforcing the need for reflective and guided use.

This study addresses this gap by adopting a qualitative, phenomenological approach to capture the lived experiences of Malaysian ESL students using AI tools for grammar learning. It also introduces a Self-Regulated Learning lens to understand better students' decision-making, reflection and evolving autonomy in the digital learning environment.

METHODOLOGY

This study employed a qualitative research design using a phenomenological approach to explore the lived experiences of ESL university students using AI tools to support grammar learning. Phenomenology is well-suited for examining personal experiences and subjective meanings, allowing the researcher to delve into how learners interpret, engage with, and are influenced by tools like Grammarly, ChatGPT and Quillbot. This design was chosen to uncover deeper emotional, cognitive, and behavioural dimensions that are often overlooked in quantitative research.

The research was conducted at a public university in Malaysia, where English is widely used as a second language for academic communication. The participants were five undergraduate ESL students who regularly used AI tools to support their grammar learning. They were selected using purposive sampling to ensure they had adequate and relevant experience with at least two of the three major tools examined in this study. All participants were from different academic programs, representing diverse backgrounds and language proficiency levels, which enriched the data and provided varied perspectives.

Semi-structured interviews were used as the primary data collection method. This format allowed the researcher to follow a flexible set of guiding questions while also encouraging participants to elaborate on their

thoughts and feelings. Interviews were conducted face-to-face or via video conferencing platforms, depending on participant availability and preference. Each interview lasted between 45 to 60 minutes and was audio-recordedwith the consent of the participants. The interview protocol included open-ended questions focused on participants' usage habits, perceived benefits, challenges, emotional responses and reflections on AI-generated feedback.

Sample interview questions included:

- Can you describe how you use AI tools like Grammarly, ChatGPT or Quillbot in your grammar learning?
- How do you feel these tools have affected your writing accuracy or confidence?
- What challenges have you encountered while using these tools?
- Have you ever disagreed with the feedback provided?
- How did you handle it?

Participants were informed about the study's purpose, their right to withdraw at any time and how their data would be anonymized and stored securely. All participants signed informed consent forms. Pseudonyms were used in the reporting of results to protect participants' identities.

The data were analyzed using Braun and Clarke's six-phase thematic analysis framework:

1. Familiarization with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

After transcribing the interviews verbatim, the researcher immersed themselves in the data by reading the transcripts multiple times. Initial codes were developed by identifying significant statements related to the research questions. These codes were then organized into broader themes that captured the essence of the participants' experiences. The coding process was cyclical, involving continuous comparison of data segments to ensure consistency and validity. NVivo software was used to manage and organize the qualitative data.

To enhance the credibility of the findings, several strategies were employed. Member checking was conducted by sharing interview summaries with participants to verify accuracy. Peer debriefing sessions were held with fellow researchers to discuss emerging themes and interpretations. Triangulation was achieved by comparing findings across participants and by referring to existing literature to validate the emerging themes. The researcher also maintained a reflexive journal throughout the study to document personal biases, thoughts, and methodological decisions.

This study acknowledges certain limitations. The sample size was relatively small and context-specific. It focuses only on one university in Malaysia. As such, the findings may not be generalizable to all ESL learners. Additionally, participants' self-reported experiences may be influenced by recall bias or social desirability. However, the depth of the data and the focus on lived experiences provide rich insights that can inform future research and pedagogical practices.

FINDINGS & DISCUSSION

This section presents the findings from the semi-structured interviews with five ESL students at a Malaysian university. Thematic analysis revealed three major themes: (1) enhanced self-correction and feedback, (2) increased motivation and confidence and (3) concerns over dependency and misuse. Representative excerpts are included to illustrate each theme and give voice to the participants' lived experiences.

Enhanced Self-Correction and Feedback

One of the most frequently mentioned benefits of using AI tools like Grammarly and ChatGPT was the improvement in students' ability to self-correct grammatical errors. Participants appreciated the instant and specific feedback, which helped them identify and understand their mistakes.

"Grammarly usually highlights where I go wrong in sentence structure. I learn a lot because it doesn't just correct—it explains why it's wrong." (Participant A)

The clarity provided by AI tools contributed to increased grammatical awareness. Participants reported that they began internalizing rules over time, resulting in fewer repeated errors in their writing. Some even described the tools as a form of "private tutor" for grammar.

"When I started using ChatGPT to check my grammar, I noticed it gave suggestions with explanations. That helped me fix similar mistakes in the future." (Participant C)

Other participants found that AI tools provided consistent support in drafting and revising work. For example, they would run multiple drafts through the tools, learning from each version's feedback and gradually recognizing patterns in their grammar mistakes.

"Sometimes I check my paragraphs in stages. I paste part by part into Grammarly, and then I can see where I keep making the same types of errors. It helps me notice my weak areas." (Participant B)

These findings align with existing research that affirms the effectiveness of AI tools in providing individualized grammar support ([6], [9]).

Increased Motivation and Confidence

Participants described a notable increase in confidence and motivation to write after using AI tools. The immediate, non-judgmental feedback helped reduce anxiety and fear of making mistakes. This created a safer environment for language experimentation.

"Before using Quillbot, I used to feel stuck when trying to paraphrase. Now, I feel more confident because I know I have support to guide me." (Participant D)

AI feedback was particularly empowering for students who previously struggled with grammar. One participant explained that consistent improvement in grammar scores increased their self-esteem.

"I used to get low marks in writing, but after I started using Grammarly regularly, my grades improved. I felt proud and more motivated to write more." (Participant B)

Several participants mentioned that AI tools helped them write more frequently, especially when dealing with assignments or personal writing. They felt less intimidated by the writing process, which in turn encouraged more practice and revision.

"Now I don't avoid writing tasks anymore. Even when I'm unsure, I just write and then check it with ChatGPT or Grammarly. It feels less scary to make mistakes." (Participant E)

The motivational effect of AI tools reflects findings from recent studies showing increased learner confidence through real-time grammar support ([8], [10]).

Concerns over Dependency and Misuse

Despite the benefits, participants voiced concerns about becoming overly reliant on AI tools. Some worried that frequent use could lead to reduced independent thinking and a lack of critical engagement with grammar learning.

"Sometimes I just accept the corrections without thinking. I feel like I'm not really learning if I depend on it too much." (Participant E)

There were also fears that relying too heavily on AI might hinder their ability to write independently during exams or in professional contexts where such tools are not allowed.

"It's helpful, but I'm scared I might lose my ability to write without it. Like during tests, I won't have Grammarly there." (Participant A)

Participants also highlighted a sense of guilt or hesitation when using AI tools, especially when unsure about the ethical boundaries of their application in academic writing.

"I know AI helps a lot, but sometimes I wonder if I'm cheating when I use it too much. I try not to use it for everything." (Participant D)

These concerns echo recent findings in literature regarding AI overreliance and its impact on learner autonomy and critical thinking ([24], [25]).

In sum, the findings highlight the dual nature of AI tool usage in grammar learning. While they serve as effective learning aids, their integration must be balanced to avoid overdependence and promote long-term skill development.

The findings of this study shed light on the complex and multifaceted experiences of ESL students using AI tools such as Grammarly, ChatGPT, and Quillbot to support grammar learning. Three major themes—enhanced self-correction and feedback, increased motivation and confidence, and concerns over dependency and misuse—emerged from the interviews. These insights not only validate but also extend existing literature on the role of AI in language learning.

The first theme, enhanced self-correction and feedback, confirms earlier studies that highlight the effectiveness of AI tools in improving grammar accuracy. [6] and [9] found that learners using AI grammar tools demonstrated measurable improvements in grammar scores. Similarly, participants in this study reported gaining deeper awareness of grammar rules through instant and contextualized feedback. AI tools were described as "private tutors," helping students notice patterns in their errors and internalize corrections over time. These accounts support [8] findings that AI-generated feedback is not only accurate but also pedagogically meaningful for ESL learners.

Moreover, the positive emotional impact of AI tools emerged as a significant factor in encouraging writing practice. Participants expressed increased motivation and confidence, mirroring the findings of [10], who observed that real-time corrections from AI tools enhanced students' willingness to engage in writing tasks. Students in this study described feeling less anxious and more empowered to take risks in their writing, highlighting how AI tools contribute to the affective dimension of language learning. These tools appeared to lower the emotional barriers often associated with grammar-related challenges, fostering a more supportive and autonomous learning environment.

However, the third theme concerns dependency and misuse. It adds a critical perspective to the discussion. While most studies focus on the benefits of AI-assisted learning, this study's participants voiced valid concerns about overreliance, uncritical acceptance of feedback, and ethical ambiguity. These findings are consistent with research by [24], who argue that excessive use of AI grammar tools may lead to diminished learner autonomy. [25] further caution that students using AI during peer review tasks showed reduced reflective questioning and independent judgment. These studies, together with participant reflections, highlight the need for guided and intentional use of AI tools in educational contexts.

The concern that students might lose their ability to function without AI, especially in high-stakes academic settings like exams, aligns with observations made by [12] and [13], who noted the risk of passive learning when AI tools are used without sufficient instructional scaffolding. In this study, students admitted to accepting AI corrections blindly, reinforcing the idea that while these tools are supportive, they should not replace the development of critical thinking and metacognitive skills.

This study also addresses a key gap in the literature: the lack of phenomenological, qualitative exploration into the lived experiences of ESL students using AI tools. While existing studies such as those by [26] and [27] focus predominantly on survey data and test scores, this research offers nuanced, first-person insights into how students emotionally and cognitively navigate AI-supported grammar learning. The students' voices reveal not only how they use these tools, but also how they feel about them, how they negotiate their role as learners, and how they reflect on their ethical responsibilities.

Thus, this discussion underscores the importance of incorporating AI literacy into ESL instruction. Rather than simply promoting tool usage, educators should help students develop discernment, critical engagement, and ethical awareness. As [30] note, learners must balance digital support with academic independence—a balance that is best achieved through teacher-facilitated discussions, reflective writing tasks, and structured scaffolding. By addressing both the benefits and limitations of AI tools, educators can better equip students to use these technologies as springboards for long-term linguistic growth rather than as crutches.

From an SRL perspective, the increased motivation and confidence reported by participants suggest a shift toward greater self-efficacy and goal-oriented behaviour. Students began to set clearer writing objectives and used AI feedback as a tool to monitor and adjust their writing strategies. This aligns with Zimmerman's model of SRL, where feedback plays a critical role in self-reflection and strategic planning [33]. However, the concerns about overreliance indicate that not all learners have fully developed metacognitive awareness to regulate their use of AI effectively. This stresses the need for instructional support to foster reflective engagement with AI tools.

In conclusion, this study reinforces the value of AI tools in supporting grammar learning while emphasizing the necessity of guided integration and reflective use. The findings provide a richer understanding of the learner experience and offer actionable insights for curriculum designers, educators, and AI developers aiming to optimize the role of technology in second language acquisition.

CONCLUSIONS

This study set out to explore the lived experiences of ESL university students using AI tools—namely Grammarly, ChatGPT, and Quillbot for grammar learning. By adopting a phenomenological approach, the research aimed to go beyond test scores and quantitative outcomes to uncover how learners engage with, interpret, and are shaped by their interactions with these technologies. The voices of the participants revealed a complex relationship with AI: one that is characterized by empowerment, motivation, and tangible learning benefits, but also by challenges around dependency, critical thinking, and ethical use.

The findings highlight that AI tools can significantly enhance grammar learning by providing immediate, personalized feedback and supporting self-directed revision. Students reported improved awareness of grammar rules and felt more confident and motivated in their writing tasks. These tools offered not only corrective functions but also emotional reassurance, helping learners navigate the anxieties commonly associated with language accuracy. This reinforces the value of AI as a supplementary aid in ESL education.

At the same time, the study uncovered concerns that warrant attention. Participants expressed worry about becoming overly reliant on AI tools, losing the ability to think critically about grammar, and potentially compromising academic integrity. Some learners admitted to accepting AI-generated feedback without reflection, which could hinder deeper cognitive engagement and long-term retention of language rules. These issues point to the need for a more balanced approach in integrating AI into language learning.

This research contributes to the growing body of knowledge by providing rich, qualitative insight into how ESL students personally experience AI-assisted grammar learning. Unlike previous studies that rely mainly on

quantitative data, this work centers on student voices, revealing the emotional, cognitive, and behavioural shifts that accompany their use of AI tools. It emphasizes the need for educators to not only promote the use of these technologies but also to guide students in their responsible and reflective use.

Ultimately, the study underscores that while AI tools can serve as valuable allies in the journey toward grammatical proficiency, their effectiveness depends largely on how they are implemented and contextualized within the learning environment. Educators must foster critical awareness and digital literacy among students, ensuring that these tools function as catalysts for growth rather than substitutes for active learning. In doing so, institutions can support a more meaningful, autonomous, and ethically grounded language learning experience.

RECOMMENDATION

To address the issue of overreliance and promote critical engagement, educators are encouraged to design structured classroom activities that integrate AI use with reflective practice. One effective strategy is the use of AI feedback logs**,** where students document corrections provided by tools such as Grammarly or ChatGPT and critically evaluate why they accept or reject each suggestion. This practice encourages metacognitive reflection and deeper understanding of grammatical rules. In addition, collaborative group discussions can be organized in which students compare AI feedback with peer or teacher feedback. Such activities promote evaluative thinking, raise awareness of potential inaccuracies in AI-generated suggestions, and foster the ability to negotiate meaning collectively. Teachers may also assign reflection journals in which learners describe their experiences with AI tools, highlight learning gains, and identify challenges they encounter. At the institutional level, universities could provide workshops and training sessions on ethical AI use**,** emphasizing boundaries between acceptable support and academic misconduct. These workshops can be aligned with broader AI literacy modules within writing curricula to equip learners with both technical and ethical competence. Embedding AI literacy in this way ensures that students are not only users but also critical evaluators of AI-generated feedback. Finally, educators are advised to adopt a balanced pedagogical approach**,** combining AI-supported writing with traditional grammar-focused instruction. By scaffolding AI use with teacher guidance and reflective tasks, students can maximize the benefits of AI tools while maintaining their autonomy, critical thinking, and long-term grammatical proficiency.

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