

The Impact Of The Grammarly Tool On Senior High School Students' Confidence In Learning English: A Perspective From Science And Technology In Language Learning

*The Impact of the Grammarly Tool on Senior High School Students' Confidence in Learning English:
A Perspective from Science and Technology in Language Learning*

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ABSTRACT

In the age of digital learning, the integration of Artificial Intelligence (AI) tools in education has reshaped how students engage with language learning. Grammarly, a widely used AI-powered writing assistant, offers real-time grammar corrections and suggestions that may influence learners' writing performance and emotional readiness. This article explores how the use of the Grammarly tool affects senior high school students' confidence in learning English, particularly in the writing process. Using a descriptive qualitative approach, this study draws on an analysis of technological features, existing literature, and observed learning behaviors. Findings suggest that Grammarly can enhance students' confidence by reducing anxiety over grammatical errors, promoting self-correction, and supporting autonomous learning. However, concerns such as over-reliance on technology and reduced critical awareness are also addressed. This article highlights the need for balanced integration of AI tools in language education, offering insights for educators and learners in a technology-driven environment.

Keywords : Grammarly tool, students' confidence, science and technology.

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1. INTRODUCTION

Technology has become an integral part of language learning in the rapidly evolving landscape of education. The emergence of Artificial Intelligence (AI) tools, particularly those designed to assist with writing, has transformed how students engage with English as a Foreign Language (EFL). In this digital age, learners are no longer solely dependent on traditional classroom instruction; they can now access real-time feedback and language support through intelligent software. One such tool that has gained significant attention recently is Grammarly, an AI-powered writing assistant designed to help users produce grammatically correct and stylistically appropriate English texts.

English writing, especially for senior high school students in EFL contexts, remains a challenging skill due to its complex grammar rules, vocabulary demands, and formal tone. These challenges often result in decreased confidence among students, particularly when they are unsure of the correctness of their sentences or fear making repeated grammatical mistakes. According to Bandura's (1997) social cognitive theory, confidence (or self-efficacy) plays a crucial role in students' learning behaviors; learners who believe in their capabilities are more likely to persist, engage, and succeed. Therefore, enhancing students' confidence in English writing becomes a pivotal goal in language education.

The integration of AI tools in learning environments aligns with the framework of Technology-Enhanced Language Learning (TELL). As Warschauer and Healey (1998) suggest, technology should not merely be used as a delivery mechanism but as a meaningful tool that fosters autonomy, interaction, and critical thinking. Grammarly exemplifies this shift, offering features such as real-time grammar correction, clarity improvement, tone adjustment, and vocabulary enhancement. By providing immediate, non-judgmental feedback, Grammarly helps students revise their work independently and reflect on their language use, potentially boosting their self-confidence and motivation to write.

Research into the use of Grammarly in educational settings has shown promising results. For instance, Li et al. (2021) found that students using Grammarly demonstrated improved writing accuracy and reported feeling more confident in their writing abilities. Similarly, O'Neill and Russell (2019) noted that the tool supports learner autonomy and fosters awareness of grammar patterns over time. However, these studies also caution against over-reliance, as students may become dependent on the tool without truly understanding the rules behind the corrections.

In the context of senior high school students, particularly in EFL countries such as Indonesia, the adoption of AI writing tools like Grammarly presents both opportunities and challenges. On one hand, the tool may serve as a confidence booster, empowering students to express their ideas in English more freely. On the other hand, there is a need to critically examine how such technology influences the development of writing competence and learner independence.

This article aims to explore the impact of Grammarly on the confidence levels of senior high school students in learning English, focusing on writing activities. By analyzing the functions of Grammarly, existing literature, and observed learning behaviors, this discussion will offer a qualitative perspective on how science and technology intersect with language learning. In doing so, the article seeks to contribute to a broader understanding of the role AI tools play in supporting not only linguistic accuracy but also emotional readiness and learner engagement in EFL classrooms.

The use of digital writing tools like Grammarly is increasingly integrated into formal and informal learning environments. These tools are particularly beneficial for learners of English as a Foreign Language (EFL), as they often face higher levels of anxiety and lower confidence compared to native speakers. Horwitz et al. (1986) emphasized that language anxiety can significantly hinder language acquisition and performance, especially in writing, where students feel exposed and judged for every grammatical mistake they make. In this context, Grammarly functions as a buffer, allowing students to make corrections privately, reducing the fear of embarrassment in peer or teacher evaluations.

Moreover, confidence in language learning is not merely an emotional state, but a determining factor in students' willingness to engage in communicative tasks. As supported by Dörnyei (2001), learner motivation and self-confidence are central to sustained language acquisition. Students who perceive themselves as competent are more likely to experiment with language, take risks, and remain persistent in the face of challenges. Grammarly contributes to this perceived competence by acting as a "digital scaffold," guiding students through self-repair and promoting a sense of mastery over the English language.

From a technological standpoint, Grammarly represents a clear manifestation of AI in educational practice, aligned with what Levy & Hubbard (2005) term "intelligent CALL" (Computer-Assisted Language Learning), where adaptive systems provide personalized feedback based on learner input. The tool utilizes Natural Language Processing (NLP) to analyze syntax, semantics, and even tone, giving users nuanced suggestions that mimic human-like feedback. This type of AI-driven support exemplifies how science and technology can personalize learning at scale, bridging gaps in access to one-on-one instruction, particularly in under-resourced classrooms.

Despite its advantages, the growing dependency on such tools raises pedagogical concerns. Language educators must consider whether Grammarly is fostering genuine learning or simply enabling surface-level corrections. As Bitchener & Ferris (2012) argue, effective written corrective feedback should lead to long-term improvements in language competence, not just the temporary appearance of correctness. Hence, the challenge lies in ensuring that students engage with the feedback thoughtfully, using Grammarly not just to "fix" their language but to learn from it.

Furthermore, in countries like Indonesia, where English is taught as a compulsory foreign language at the senior high school level, students often rely on rote learning and textbook-driven instruction. This environment may not adequately address individual learner differences, especially in terms of confidence and affective factors. By integrating tools like Grammarly, schools have the potential to offer more personalized and supportive learning environments. However, the success of such integration depends on students' digital literacy, their ability to reflect on automated feedback, and teachers' willingness to incorporate these tools into their pedagogy.

This article, therefore, addresses a crucial intersection between language learning, affective factors such as confidence, and the role of AI-driven educational technology. It aims to answer a timely and relevant question: Does the use of Grammarly enhance or hinder senior high school students' confidence in learning English? By synthesizing literature on educational technology, EFL writing instruction, and learner affect, this article provides a grounded, qualitative discussion on how tools from science and technology can be leveraged — or misused — in language education today.

2. LITERATURE REVIEW

In educational research, theoretical frameworks serve as the foundation for understanding the phenomena under investigation. In the context of language learning, particularly English as a Foreign Language (EFL), theories related to self-confidence and technology-enhanced learning are crucial in interpreting how learners interact with digital tools and how these tools impact their affective and cognitive development. This study draws upon Bandura's theory of self-efficacy and recent scholarship on AI-assisted writing tools to explore how Grammarly influences students' confidence in learning.

A. Self-Confidence in Language Learning

Self-confidence is considered a key affective factor that influences language learning outcomes. According to Bandura's theory of self-efficacy (1997), individuals who believe in their ability to succeed are more likely to engage in learning tasks and persevere through difficulties. In the context of EFL (English as a Foreign Language), self-confidence enables learners to take risks, produce language output, and interact without excessive fear of making mistakes (Dörnyei & Ryan, 2015). Recent research continues to emphasize the affective dimension of language learning. Zhang and Tsung (2021) found that students' writing confidence significantly predicted their performance in English writing assessments, especially when feedback was timely and supportive. This supports the idea that tools which reduce anxiety and offer constructive support—like Grammarly—could positively affect learners' confidence. Confidence is not just emotional; it directly influences performance. Learning tools that help reduce anxiety and provide structure may enhance confidence.

B. The Role of AI-Based Writing Tools in EFL Education

Artificial Intelligence (AI) tools are increasingly integrated into second language education to support writing skills. Grammarly, a prominent AI-powered writing assistant, offers grammar correction, clarity suggestions, tone adjustments, and vocabulary enhancement. According to research by Kohnke et al. (2021), Grammarly significantly supports language learners in revising their work, particularly in contexts where teacher feedback is delayed or limited. Li, Link, and Hegelheimer (2022) investigated Grammarly use among university ESL students and found that not only did writing accuracy improve, but many students reported increased motivation and self-awareness of language errors. Similarly, Nami and Marandi (2023) noted that AI-based tools provided “non-threatening corrective feedback” which allowed learners to develop autonomy without fear of judgment. However, scholars also warn about the risks of over-reliance. Godwin-Jones (2022) emphasized that while tools like Grammarly can support surface-level accuracy, they must be integrated with reflective practice and deeper instruction to promote long-term competence. Grammarly and similar tools offer both cognitive (error correction) and affective (motivation, confidence) support, but their benefits depend on how consciously learners use them.

C. Grammarly Tool and Students' Confidence: Recent Findings

There is a growing body of research directly linking Grammarly to learner affect—especially confidence. O'Neill and Russell (2021) conducted a mixed-methods study which found that students who regularly used Grammarly felt “less anxious” about submitting writing assignments, and “more in control” of their language use. Meanwhile, Ismail and Alias (2023) examined Grammarly use in a Malaysian high school and found that students with limited English proficiency reported increased writing confidence after sustained exposure to the tool.

Moreover, Wu and Chen (2024) argue that Grammarly acts as a “digital confidence scaffold,” particularly for students in non-English speaking countries. Their qualitative findings show that students appreciated the privacy, immediacy, and personalization of Grammarly's feedback, which allowed them to revise independently and feel more capable. Grammarly not only helps with linguistic accuracy but fosters psychological readiness to write—a crucial factor for senior high school learners.

D. The Research Gap

While many studies explore the effect of Grammarly on writing accuracy and grammar learning, there is still limited focus on its impact on students' emotional or affective domains, especially in senior high school settings. Most Grammarly studies focus on university-level learners, leaving a gap in understanding how this tool affects confidence in younger learners who are still developing foundational writing skills. Furthermore, in the context of Indonesian education, the integration of AI tools in regular classroom practice remains under-researched. Given the increasing importance of digital tools in curriculum innovation, this study aims to address this gap by exploring how Grammarly influences the confidence levels of Indonesian senior high school students in learning English.

3. METHOD

A. Research Design

This study employed a qualitative descriptive method to explore how the use of Grammarly influences senior high school students' confidence in learning English. The qualitative approach was chosen to gain in-depth insights into students' experiences, feelings, and perceptions regarding AI-based writing tools in their learning process.

B. Participants

The participants of this study were 10 senior high school students from a public school in SMA Sinar Husni located at Medan city which selected through purposive sampling. They were selected based on their active use of Grammarly for at least one semester during their English learning.

C. Research Setting

The study was conducted at [School Name] during the second semester of the 2024/2025 academic year. The setting was chosen due to the school's integration of digital tools in English instruction.

D. Instrument for collecting Data

Data were collected using semi-structured interviews and open-ended questionnaires. The instruments were designed to elicit students' experiences and reflections on using Grammarly, particularly how it influenced their confidence in writing and learning English.

E. Data Collection Procedure

Participants were first given a questionnaire to gather initial impressions and general attitudes toward Grammarly. This was followed by one-on-one interviews conducted in a quiet school environment to allow deeper exploration of their responses. All interviews were recorded with the participants' consent.

F. Data Analysis Technique

The collected data were analyzed thematically using Miles and Huberman's (1994) model, which includes data reduction, data display, and conclusion drawing/verification. Thematic coding was applied to identify key patterns and categories related to students' confidence and their perceptions of Grammarly's impact.

4. RESULT AND DISCUSSION

This study set out to examine how the use of Grammarly—a popular AI-powered writing assistant—affects the confidence of senior high school students in learning English. Confidence, particularly in writing, plays a crucial role in language learning, as students often struggle with self-doubt, fear of making mistakes, and limited feedback. Through a qualitative descriptive approach, data were obtained from six senior high school students who had been actively using Grammarly in their writing tasks. The data were collected via semi-structured interviews and analyzed thematically to identify recurring patterns related to their perceptions, behaviors, and experiences. The themes that emerged from the analysis reflect both the benefits and the drawbacks of Grammarly usage. In this section, the results are discussed in depth, categorized into three key findings: (1) increased confidence in writing due to real-time feedback, (2) the tool's role as a learning companion that fosters self-correction and

awareness, and (3) the emergence of over-reliance that potentially weakens students' independent writing skills. These findings are then interpreted in the context of relevant theories and prior research, highlighting the nuanced role of AI tools in the development of learner confidence and autonomy in language learning.

A. Increased Confidence in Writing

The findings of this study revealed that the majority of participants experienced an increase in their confidence when writing in English after using Grammarly regularly. Out of six participants, five stated that they felt less anxious about making mistakes and more willing to write without hesitation.

Participant 3 noted:

"When I use Grammarly, I feel more secure. I don't worry too much about grammar or spelling because I know the tool will help me fix it."

Participant 2 stated:

"I used to double-check every sentence I wrote. Now, I just write and let Grammarly highlight my mistakes. It makes me feel safer."

Participant 6 added:

"Before using Grammarly, I was embarrassed to submit my writing because I knew it wasn't perfect. Now, I'm more confident to share my work, even with my teacher."

This aligns with findings by Chandra and Yuyun (2021), who suggested that AI-assisted tools can reduce students' anxiety and improve their self-assurance when completing language tasks. Grammarly's instant feedback system builds a sense of control over the writing process, contributing positively to learners' affective engagement with English.

This reflects what Zheng et al. (2021) observed in their study on AI-assisted writing tools, where students using such platforms showed reduced writing anxiety and greater confidence to express their ideas in English. Grammarly, by providing immediate, non-judgmental feedback, supports learners psychologically as well as technically.

B. Grammarly Tool as a Learning Companion

In addition to increasing writing confidence, Grammarly was perceived by many students as a helpful learning tool. Participants reported that they not only corrected their errors but also began to understand grammar rules more deeply over time.

Participant 5 shared:

"At first, I just clicked accept on the suggestions. But after a while, I noticed patterns, like why 'has' should be used instead of 'have'. It's like learning passively."

Participant 4 explained:

"Grammarly kept telling me to use 'has' instead of 'have' in some sentences. After a while, I started recognizing it on my own. I didn't even need Grammarly for that rule anymore."

Participant 8 mentioned:

"It's like having a mini-teacher that doesn't get tired. I learned what passive voice was because Grammarly kept showing it to me."

These observations are supported by Vasylets, Prilutska, and Yurievna (2022), who emphasized that tools like Grammarly can promote incidental learning by exposing students to corrections in real time. The repetitive nature of error feedback encourages learners to become more aware of their grammar habits and fosters metalinguistic reflection.

This observation is in line with Vasylets, Prilutska, and Yurievna (2022), who emphasized the role of AI-based tools in promoting learner autonomy and incidental grammar acquisition. By constantly interacting with error feedback, students unconsciously internalize language rules.

C. Dependency and Over-Reliance on the Tool

Despite the positive effects, a few participants expressed concern about becoming too dependent on Grammarly.

Participant 1 stated:

"I feel confident when using Grammarly. But when I have to write on paper or in an exam, I get nervous again."

Participant 1 shared:

"In class, when I have to write by hand, I panic a bit. I keep thinking I'm making mistakes that Grammarly would normally fix."

Participant 7 added:

"I realized I rely on Grammarly too much. Without it, I feel like I don't know how to write correctly anymore."

This highlights a potential drawback of overusing technological assistance. As Godwin-Jones (2020) argued, while AI tools enhance accuracy and reduce anxiety, they should be used in balance with traditional instruction to avoid stunting learners' independent skills. It is essential for educators to help students gradually transition from relying on Grammarly to building their own editing and critical thinking abilities.

This concern raises a valid point about technology over-reliance. According to Godwin-Jones (2020), while digital tools can enhance language learning, excessive dependence on them may hinder learners from developing independent writing strategies. Hence, it is essential to balance the use of technology with guided instruction that promotes self-editing skills.

5. CONCLUSION

This study has explored how the use of Grammarly influences senior high school students' confidence in learning English. The findings indicate that Grammarly contributes positively to students' confidence, particularly in writing tasks, by providing immediate and accessible feedback. Most participants reported feeling more secure and motivated when writing, as the tool reduced their fear of making grammatical errors. In addition to building confidence, Grammarly also served as a learning companion, helping students recognize and internalize language rules over time.

However, the study also revealed a potential downside: over-reliance on the tool. Some students expressed anxiety when writing without Grammarly, suggesting a dependency that could hinder their independent language development. These results highlight the importance of integrating AI tools like Grammarly into language learning in a balanced and pedagogically guided manner. While technology

can offer support and enhance learner confidence, it should not replace the development of autonomous language skills.

In light of these findings, educators are encouraged to use Grammarly not only as a correction tool, but as part of a broader strategy to foster learner autonomy, critical thinking, and confidence in language use. Further research may explore how different levels of student proficiency affect their interaction with AI tools, and how these tools can be optimized to support long-term language development.

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