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AI-Assisted Error Awareness: Investigating Language Error Recognition and Correction among Japanese EFL Elementary Students

James W. Henry
Kyoto Sangyo University, Japan
akamatsucreative@gmail.com, james@jameshenryid.com

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Abstract
This study examines how Japanese elementary-level EFL students identify and correct language errors through AI-assisted revision. Using a multi-stage approach, students first produced natural language samples describing their hometowns and admired figures, establishing baseline communication patterns. Following the introduction of AI tools, students revised their original submissions and reflected on their learning through surveys. Analysis revealed that students primarily identified and corrected grammatical structure errors, word choice limitations, and sentence complexity issues through AI feedback. The findings suggest that AI-assisted revision enhances students' metalinguistic awareness and provides opportunities for autonomous learning. This research contributes to understanding how AI tools can be effectively integrated into EFL classrooms to support error correction and language development. Importantly, the results imply that structured integration of AI feedback can foster greater learner autonomy, encourage reflective self-correction, and serve as a scalable complement to traditional teacher-led instruction—especially in contexts like Japan where passive learning tendencies may limit engagement with form-focused feedback.
Keywords: AI-Assisted Revision, English Language Learning, Error Awareness, Japanese EFL Learners, Metalinguistic Awareness

1. Introduction

Recent advances in artificial intelligence have transformed feedback and error correction in language education, offering immediate, personalized guidance to learners (Huang et al., 2023). Tools such as ChatGPT, Grammarly, and other generative AI platforms are increasingly integrated into classroom settings, providing learners with on-demand revision support. While numerous studies have explored AI applications in EFL learning more broadly (Zhang & Zou, 2020; Sun et al., 2021), few have examined how Japanese elementary-level EFL students specifically identify and address their language errors through AI-assisted revision. This is a significant gap, as Japanese learners face persistent challenges due to L1 interference, particularly with grammatical structures like articles, verb tenses, and subject-verb agreement (Yun & Aoyama, 2019). These challenges are compounded by Japan's traditional emphasis on accuracy over communicative competence (Tahira, 2012) and its generally teacher-centered instructional approach (Nakata, 2011).

Research suggests that AI-assisted revision can increase metalinguistic awareness and learner autonomy. Weng and Chiu (2023) argue that AI integration may help shift classroom dynamics by promoting more active engagement with language input. Arslan and Şahin-Kızıl (2022) also report that AI tools encourage reflection and foster more accurate self-correction behaviors. Yet little is known about how these findings translate to lower-proficiency Japanese learners, especially in classroom settings where passive reception of teacher feedback has been the norm.

Understanding how Japanese EFL students at the elementary level experience AI-assisted revision—what errors they notice, how they revise, and what they find challenging or beneficial—can provide insight into how these tools might be most effectively used in similar contexts.

Therefore, this study addresses the following research questions:

1. Which specific language errors do Japanese EFL students learn to identify and correct through AI-assisted revision?
2. How does AI-assisted revision influence their metalinguistic awareness and autonomous learning?
3. What are the perceived benefits and challenges of using AI tools for error correction among Japanese EFL elementary students?

By focusing on these questions, this study seeks to clarify how AI-supported revision can be integrated into pedagogical practice in ways that genuinely support learner development.

2. Literature Review

This section examines the theoretical foundations and prior research that inform our understanding of error awareness, language acquisition, and technology integration in language learning.

2.1 Error Analysis in Second Language Acquisition

Corder's (1967) seminal work on error analysis established that errors provide valuable evidence of a learner's developing interlanguage system. Unlike mistakes, which are performance errors that learners can self-correct, errors reflect gaps in competence that require intervention. Building on this foundation, Ellis and Shintani (2014) suggest that making errors visible to learners is crucial for language development, as it allows them to notice the gap between their current production and target language norms.

For Japanese learners specifically, error patterns often reflect L1 interference. Yun and Aoyama (2019) identified consistent error patterns among Japanese EFL learners, including article

omission, subject-verb agreement issues, and inappropriate sentence structures. These patterns align with what Lado (1957) described in his Contrastive Analysis Hypothesis, where features that differ between L1 and L2 present greater learning challenges. Li and Roshan (2022) conducted a meta-analysis confirming that written corrective feedback in digital environments enhances the visibility and correctability of such errors. This study examines how AI tools make these specific error patterns more visible to Japanese learners and whether this visibility enhances error correction and awareness.

2.2 Noticing Hypothesis

Schmidt's (1990) noticing hypothesis suggests that learners must consciously notice linguistic features to acquire them. This conscious attention to form is essential for input to become intake. Schmidt (2010) later clarified that noticing operates at various levels, from simple awareness of a feature's presence to understanding its significance in the language system.

Technology has been shown to enhance noticing by highlighting linguistic features that learners might otherwise miss. Hong (2010) examined how corpus-based approaches facilitated noticing among EFL learners, finding that technological interventions significantly increased attention to grammatical forms. Sun, Zhang, and Zou (2020) conducted a meta-analysis showing that computer-assisted English writing tools, including AI-based feedback, significantly improve learners' ability to notice and revise errors. Rahimi and Fathi (2021) found that EFL learners actively engaged with automated writing evaluation tools, indicating increased metalinguistic awareness and feedback uptake.

2.3 Learner Autonomy

Holec's (1981) conception of learner autonomy as taking charge of one's learning aligns with the self-directed use of AI for revision and error correction. Autonomous learning involves developing the capacity to reflect on one's language production critically and make informed corrections independently. Benson (2021) argues that technology can foster autonomy by providing learners with resources to identify and address weaknesses without constant teacher intervention.

The Japanese educational context presents particular challenges for autonomous learning. Traditionally characterized by teacher-centered approaches (Nakata, 2011), Japanese education has often emphasized passive learning rather than active self-correction. Benson (2021) also highlights that digital tools in Japan's EFL settings can help learners build autonomy. This study explores how such tools influence students' metacognitive growth and ability to independently address their errors.

2.4 Computer-Assisted Language Learning (CALL)

Building on CALL research by Chapelle (2001), this study positions AI tools as the next evolution in technology-enhanced language learning. Chapelle identified key criteria for CALL effectiveness, including language learning potential, learner fit, and practicality. More recent studies have examined how various technological interventions meet these criteria in different learning contexts.

Zhang and Zou (2020) investigated state-of-the-art technology use among language learners, finding that tools providing immediate feedback align well with students' preference for accuracy. Rahimi & Fathi (2021) and Rahimi and Fathi (2021) both emphasized the role of AI feedback in shaping learner attitudes, with implications for motivation and sustained engagement.

The theoretical framework outlined above provides a foundation for understanding how AI-assisted revision might enhance error awareness among Japanese EFL learners. By examining the intersection of error analysis, noticing, learner autonomy, and CALL, this study aims to contribute

to our understanding of how technology can address the specific challenges faced by Japanese learners in identifying and correcting language errors.

3. Research Methods

This section outlines the methodological approach employed in this study, detailing the research design, participants, data collection instruments, procedures, and analysis methods.

3.1 Research Design

This study employed a mixed-methods, multi-stage intervention design, combining both quantitative (descriptive statistics, comparative writing analysis) and qualitative (open-ended survey responses) data. The research was conducted by a single instructor-researcher in an intact classroom setting, with AI integration used to investigate language error awareness and revision behavior over time.

3.2 Participants and Sampling

Participants were selected using convenience sampling from four intact sections of first-year undergraduate "Elementary English" courses at Kyoto Sangyo University. All students (N = 232) were aged 18–20 and placed at CEFR A2–B1 proficiency levels based on the university's internal placement procedures. Participants represented diverse departments, including Business, Economics, Engineering, and Law. The bonus writing and revision assignment was offered to all enrolled students; participation was voluntary and had no effect on course grades. Only students who gave written consent for use of their anonymized data were included in the analysis.

3.3 Instrument Design and Validation

To get the data optimally in answering the research questions, the study employed four data collection instruments:

1. *Writing Tasks*

The research administered a writing task and the students completed two short writing assignments, consisting 100–150 words:

- *Prompt 1*: "What's your favorite thing about your hometown?"
- *Prompt 2*: "Who do you most admire and why?"

These tasks served as baseline language samples before AI intervention.

2. *Audio/Video Recordings*

Students recorded themselves reading their submissions aloud. While these were used for classroom reflection on pronunciation and fluency, the recordings also provided a secondary record of students' oral engagement with their own text.

3. *AI-Revised Versions*

After instruction on using AI tools (e.g., ChatGPT, Claude, Gemini), students revised both writing tasks. No specific prompts or templates were given; students interacted freely with the AI of their choice. The goal was to preserve authenticity in AI engagement.

4. *Survey*

A post-revision online survey captured students' perceptions of the AI process among Japanese EFL Elementary Students. It included:

1. Likert-scale items (e.g., "The AI tool helped me notice grammar/syntax problems in my writing")
2. Open-ended questions (e.g., "What specific mistakes did you learn to correct through AI?" and "Would you use AI again for future assignments?")
3. Tool preference and usage data

The survey was reviewed by two experienced EFL instructors to ensure clarity and content validity. While the instrument was not adapted from existing scales, internal reliability for the Likert items was calculated (Cronbach's $\alpha = 0.81$), indicating good internal consistency. A pilot with 10 students was conducted to verify wording and usability.

3.4 Data Collection Instruments

The study utilized multiple data collection instruments to capture students' language production and their reflections on the AI-assisted revision process:

1. Original writing samples: Students completed two writing tasks responding to personal prompts ("What's your favorite thing about your hometown?" and "Who do you most admire and why?") to establish baseline language production.
2. Audio/video recordings: Students recorded themselves reading their written responses to capture pronunciation and fluency patterns.
3. AI-revised writing samples: Students used AI tools to revise their original writing, creating a second version of each response.
4. Survey instrument: A comprehensive survey collected student reflections on their experience with AI-assisted revision, focusing particularly on the question "What specific mistakes did you learn to correct through AI?" The survey also included Likert-scale items measuring students' perceptions of improvement, confidence, and future intentions regarding AI use.

3.5 Data Collection Procedures

The intervention was conducted over six weeks during the Winter term in Dec 2024 until Jan 2025:

1. Week 1: Prompt 1 writing (no AI)
2. Week 2: Reading-aloud recording of Prompt 1
3. Week 3: Prompt 2 writing (no AI)
4. Week 4: Reading-aloud recording of Prompt 2
5. Week 5: AI revision of Prompt 1 + re-recording
6. Week 6: AI revision of Prompt 2 + re-recording
7. Post: Online survey completion

This design allowed clear comparison between students' original and revised work while also enabling self-reflection on their error awareness and writing confidence.

3.6 Data Validation

Qualitative survey data were coded by the solo researcher using thematic analysis. Open coding was followed by axial grouping into categories (e.g., grammar awareness, vocabulary precision, sentence complexity). To reduce bias, coding definitions were iteratively refined using a subset of responses and verified by a second external reviewer. Quantitative survey data were checked for completeness, and anomalous or duplicate entries were discarded. Minor spelling or formatting errors in open-ended responses were retained unless they obscured meaning.

3.7 Data Analysis Techniques

The last research procedure was data analysis. The data analysis employed both qualitative and quantitative approaches. In qualitative analysis, the open-ended responses were analyzed using thematic coding to identify the most commonly reported areas of error awareness (e.g., articles, collocations, verb tense). In quantitative analysis, the Likert-scale survey items were summarized using descriptive statistics. The changes in writing performance were evaluated by comparing:

1. Sentence length (average words per sentence)
2. Vocabulary diversity (type-token ratio)
3. Structural variety (manual coding of syntactic patterns)
4. Error patterns (recurring issues with grammar and cohesion)

While no inferential statistics were conducted due to the descriptive nature of the study, the triangulated results provide robust insight into learner perceptions, AI impact, and instructional implications.

4. Results

The analysis of student feedback and comparative examination of original and AI-revised submissions revealed several key areas where students developed enhanced error awareness through AI-assisted revision. This section presents these findings organized into three main categories: grammatical structure awareness, lexical precision and collocation awareness, and syntactic complexity and discourse organization.

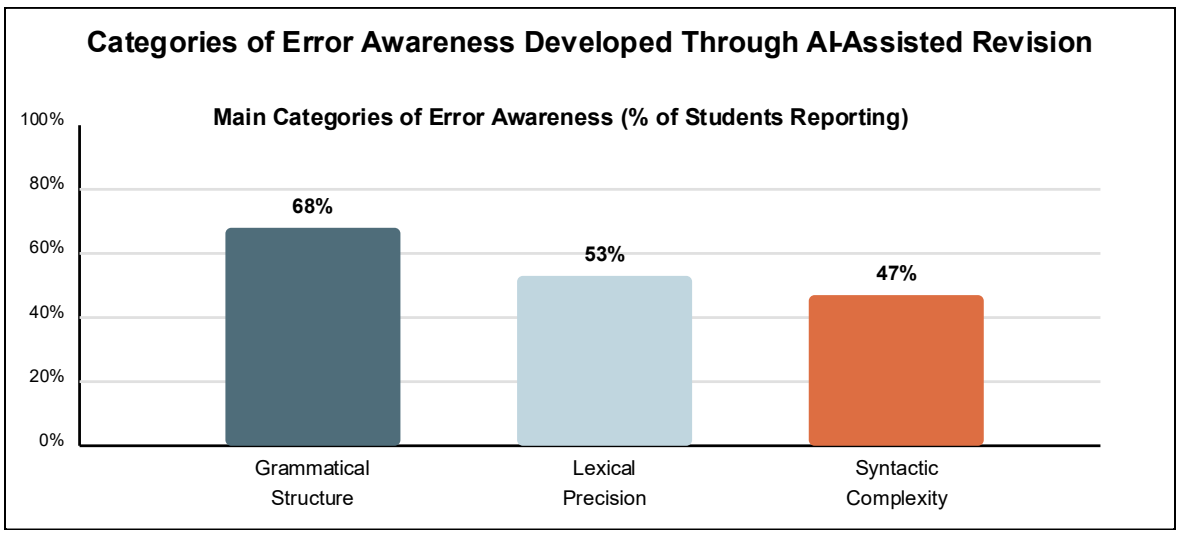

Figure 1. Categories of Error Awareness Developed Through AI-Assisted Revision

As shown in Figure 1, grammatical structure errors constituted the most frequently identified category, with 68% of students reporting enhanced awareness in this area. This was followed by lexical precision (53%) and syntactic complexity (47%). These findings reflect the particular challenges Japanese EFL learners face due to significant differences between their L1 and English. Each category encompasses several specific error types that students identified through the AI-assisted revision process, which will be examined in detail in the following sections.

4.1 Grammatical Structure Awareness

Analysis of student responses indicated that grammatical structure errors constituted the most frequently identified category of language errors through AI-assisted revision. Approximately 68% of respondents specifically mentioned becoming aware of grammatical errors in their original writing. Within this category, several specific grammatical features emerged as particularly significant for Japanese EFL learners.

Article usage represented the most commonly reported grammatical awareness gain, with 42% of respondents specifically mentioning articles. The Japanese language lacks an article system comparable to English, making this a persistent challenge for learners. One student's reflection captured this awareness development: "I never knew when to use 'the' or 'a' correctly. The AI showed me patterns I hadn't noticed before, like using 'the' for specific things we already mentioned." This comment illustrates how AI feedback facilitated the identification of article usage patterns that had previously remained opaque to the learner.

Verb tense consistency emerged as the second most frequently identified grammatical feature, with 37% of students reporting new awareness in this area. Comparative analysis of original and AI-revised submissions revealed that tense shifting was common in baseline samples, particularly in narratives about hometowns where students frequently mixed present and past tenses inappropriately. The AI revision process highlighted these inconsistencies, with one student noting: "I didn't realize I was changing tenses randomly within the same paragraph until the AI pointed it out."

Subject-verb agreement issues were identified by 31% of students, reflecting another area of L1 interference. In Japanese, verbs do not change form based on subject number, making this a non-salient feature for Japanese learners. The AI revision process made these errors visible, with students reporting increased awareness of when plural subjects require plural verb forms. One student commented: "I learned that when I talk about 'people' I need to use 'are' not 'is' – I never noticed this mistake before."

Preposition usage was identified by 29% of students as an area where AI feedback enhanced their awareness. Original submissions frequently contained preposition errors typical of Japanese learners, such as confusion between "in," "at," and "on" for location expressions. The AI-assisted revision process helped students identify patterns in their preposition errors, with one noting: "I realized I was using 'in' for everything, but there are specific rules for different prepositions."

These findings suggest that AI-assisted revision makes grammatical patterns more visible to learners, supporting Schmidt's (1990) noticing hypothesis. The personalized nature of the feedback appears particularly valuable, as students reported noticing their own specific error patterns rather than general grammar rules.

4.2 Lexical Precision and Collocation Awareness

The second major category of error awareness that emerged through AI-assisted revision related to vocabulary usage, word choice precision, and collocation knowledge. Approximately 53% of students reported becoming aware of limitations in their vocabulary usage through the AI revision process.

Word choice precision represented the most frequently mentioned lexical awareness gain, with students identifying their tendency to use general, all-purpose terms rather than more specific, contextually appropriate vocabulary. Original submissions frequently contained high-frequency verbs such as "make," "do," and "have" in contexts where more precise alternatives would be more appropriate. One student reflected: "The AI showed me that I always use 'nice' to describe

everything. I learned more specific adjectives like 'breathtaking' for scenery and 'welcoming' for people."

Collocation awareness emerged as a significant area of development, with 34% of students specifically mentioning learning about word combinations through AI revision. Japanese learners often struggle with English collocations due to L1 interference, creating combinations that are grammatically correct but unnatural. One student noted: "I wrote 'strong rain' in my original, but the AI changed it to 'heavy rain.' I didn't know that 'strong' doesn't match with 'rain' in English even though we say it that way in Japanese."

Register awareness was reported by 27% of students, who identified instances where their vocabulary choices were inappropriately informal or formal for the context. Students noted that the AI revisions helped them understand distinctions between casual and academic language choices. One student commented: "I used a lot of slang words I learned from movies, but the AI helped me see that some of these words aren't appropriate for formal writing."

These findings align with research by Hasselgren (1994), who found that lexical precision represents a significant challenge for EFL learners. Hasselgren identified what she termed "lexical teddy bears"—familiar words that learners cling to rather than exploring more precise alternatives. The AI-assisted revision process appears to enhance awareness of lexical limitations by providing immediate alternatives and explanations for why certain word choices might be inappropriate or imprecise.

4.3 Syntactic Complexity and Discourse Organization

The third major category of error awareness related to sentence complexity and discourse-level organization. Approximately 47% of students reported becoming aware of limitations in their syntactic structures and paragraph organization through AI revision.

Sentence complexity awareness was reported by 38% of students, who identified their tendency to use simple, repetitive sentence structures. Comparative analysis of original and AI-revised submissions revealed that baseline samples frequently contained series of short, simple sentences with similar syntactic patterns. The AI revision process highlighted possibilities for combining ideas using subordination and coordination, with one student noting: "I realized all my sentences started with 'I' and were very short. The AI showed me how to connect ideas with 'although,' 'while,' and 'despite.'"

Paragraph organization awareness was mentioned by 31% of students, who reported becoming conscious of issues with topic development and coherence. Original submissions often lacked clear topic sentences or contained unrelated ideas within single paragraphs. One student reflected: "The AI reorganized my ideas to group similar points together. I hadn't realized how jumbled my original paragraph was."

Transition usage emerged as another area of awareness development, with 29% of students mentioning learning about connecting ideas between sentences and paragraphs. One student commented: "I learned words like 'furthermore' and 'in contrast' that make the relationship between ideas clearer. My original writing just put ideas next to each other without connecting them."

These findings suggest that AI-assisted revision enhances awareness not only of sentence-level errors but also of broader discourse-level organization. This aligns with research by Huang et al. (2023), who found that AI tools are particularly effective at addressing macro-level writing issues that might be overlooked in traditional error correction approaches.

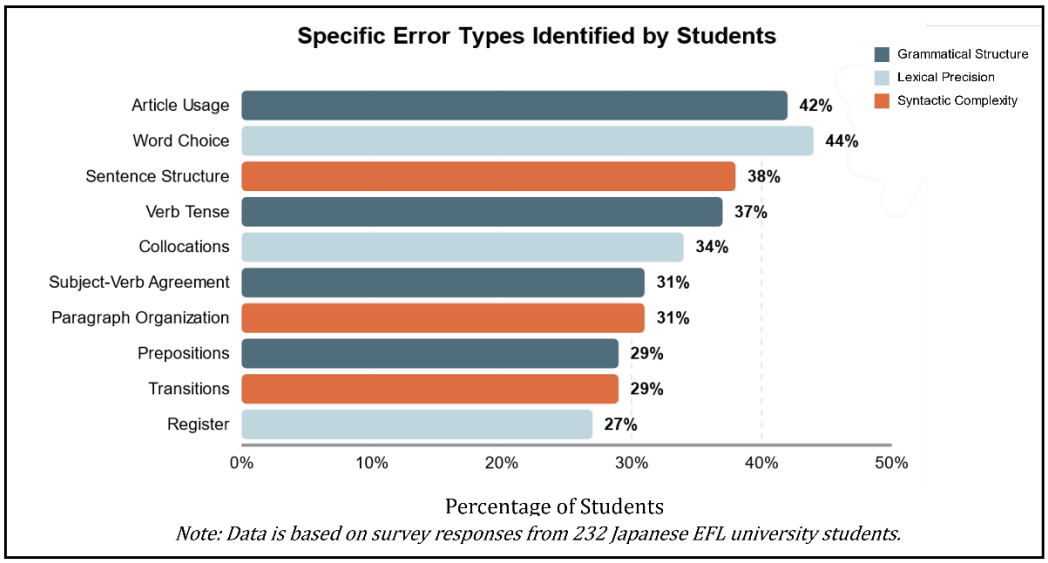

Figure 2. Detailed Breakdown of Specific Error Types Identified by Japanese EFL Students During AI-Assisted Revision

As illustrated in Figure 2, the specific error types most frequently identified by students span across grammatical, lexical, and syntactic domains, with word choice (44%) and article usage (42%) emerging as the most common areas of enhanced awareness. This multi-dimensional nature of error awareness highlights how AI-assisted revision helps Japanese EFL learners recognize various aspects of language that require attention.

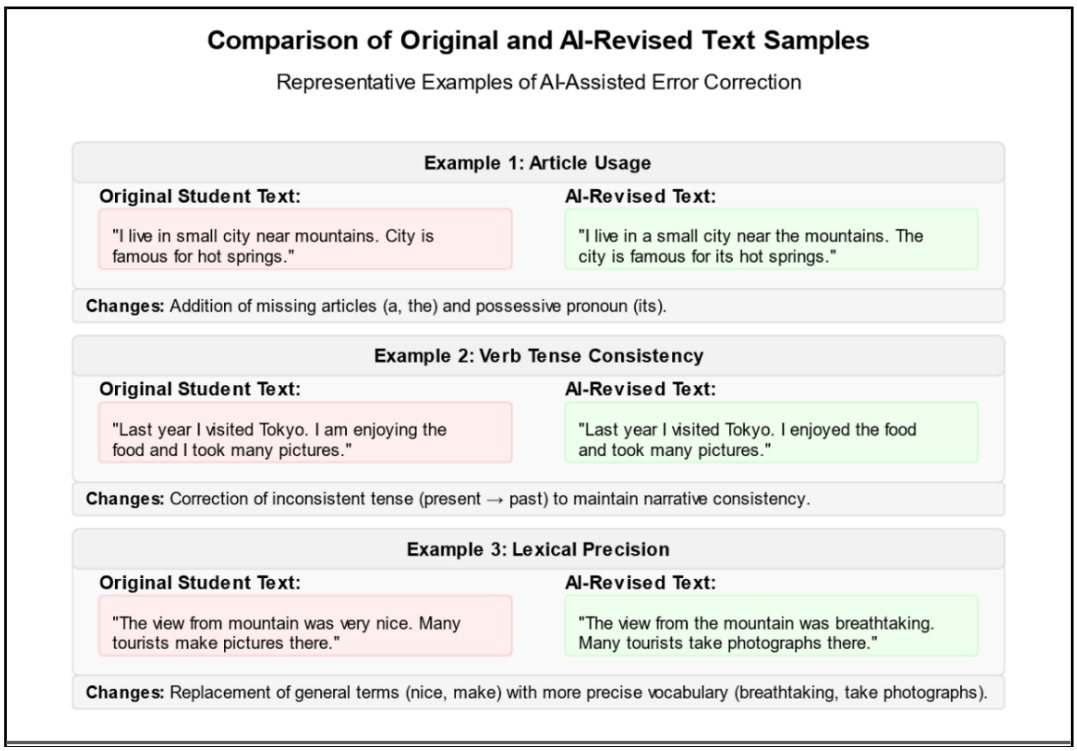

Figure 3. Comparison of Original and AI-Revised Text Samples

Figure 3 illustrates clear differences between students' original and AI-revised writing samples. Notable improvements include increased sentence variety, more precise word choice, and greater grammatical accuracy. These contrasts highlight the role of AI feedback in scaffolding more effective language production and offering learners concrete models for revision.

5. Discussion

The overall pattern that AI-assisted feedback in this study enhanced learners' grammatical accuracy and global text quality is broadly consistent with recent evidence on automated writing evaluation and automated written corrective feedback (AWCF) in EFL contexts. For example, a randomized controlled trial by Wei, et al (2023) showed that sustained exposure to an AWE program significantly improved Chinese EFL learners' task achievement, coherence and cohesion, lexis, and grammatical accuracy, which parallels the multidimensional gains observed in our learners' drafts. Similarly, Rahimi, et al (2025) reported that AWCF, framed through activity theory, promoted EFL students' academic writing performance across key rubric dimensions, reinforcing our claim that AI-mediated feedback can function as an effective mediating tool rather than a simple "shortcut" to error correction. However, whereas Saricaoglu & Bilki (2021) found that students' voluntary use of automated writing evaluation varied widely and that engagement patterns mediated accuracy gains, our findings suggest a more consistent uptake of AI feedback, possibly because the tool was tightly integrated into the course assessment cycle rather than offered as an optional add-on. Recent research on generative AI in EFL writing also resonates with our results: Su, et al (2023) showed that collaborating with ChatGPT in argumentative writing fostered more substantive revision moves, and Yang & Lin (2025) found that students used generative AI strategically for translanguaging and idea development, both of which echo our learners' reports that AI feedback supported not only surface-level error reduction but also higher-order aspects of clarity and organization.

The multi-dimensional nature of error awareness developed through AI-assisted revision suggests that these tools hold significant potential for addressing persistent challenges among Japanese EFL learners. Specifically, the results of this study indicate that structured use of AI feedback helps students identify both surface-level and deeper linguistic issues, including grammatical structures, vocabulary precision, and discourse organization. These findings are consistent with Schmidt's (1990) noticing hypothesis, which emphasizes that conscious awareness of linguistic form is essential for acquisition. The AI tools used in this study appeared to make previously non-salient features more visible, fostering both recognition and correction of errors.

As shown in Figure 4A, a large proportion of students reported that AI-assisted revision helped them identify grammatical mistakes, improve vocabulary use, and build overall confidence in writing. These self-reported benefits mirror findings from Huang et al. (2023), who emphasized that AI-generated feedback is often more immediate, personalized, and context-sensitive than traditional teacher feedback. Arslan and Şahin-Kızıl (2022) similarly noted that AI-supported revision promotes metalinguistic reflection, especially among learners who may not typically monitor their own output. In the present study, students frequently described becoming aware of habitual mistakes, such as article omission or misused collocations, which aligns with the concept of "noticing" as a precursor to linguistic change.

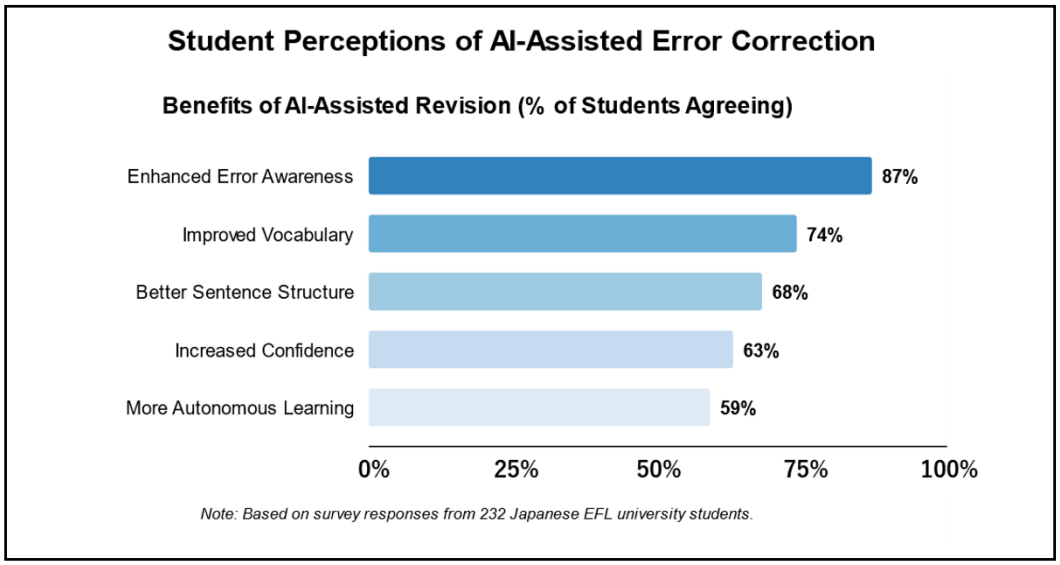

Figure 4A. Benefits of AI-Assisted Revision as Reported by Students

Figure 4B highlights challenges that are equally important to consider. Some students expressed confusion about AI-generated corrections or admitted to accepting suggestions without fully understanding them. These findings echo concerns raised by Sun et al. (2021), who warned that over-reliance on AI feedback can lead to superficial revision or blind acceptance of corrections. While AI tools can prompt reflection, their effectiveness is contingent upon the learner's ability to critically evaluate feedback. Therefore, instructional scaffolding remains essential: teachers should not only introduce AI tools but also guide students in interpreting suggestions, questioning output, and developing trust in their own judgment.

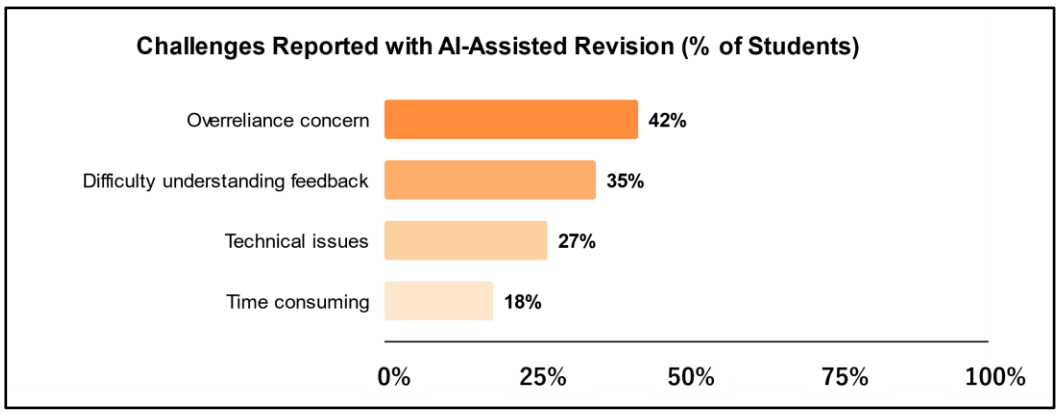

Figure 4B. Challenges with AI Use in Language Learning

Figure 4C reveals students' intentions to continue using AI tools in the future. This is a particularly promising development in the Japanese context, where passive reception of feedback has traditionally dominated classroom culture (Nakata, 2011). That students expressed a desire to independently revise their work using AI suggests a potential shift toward learner autonomy. Holec (1981) defined autonomy as the ability to take charge of one's own learning, and Benson (2021) emphasized that technology can play a central role in fostering this independence. The data from

this study provide empirical support for these claims: AI-assisted revision not only corrected student output but also appeared to reshape their approach to writing.

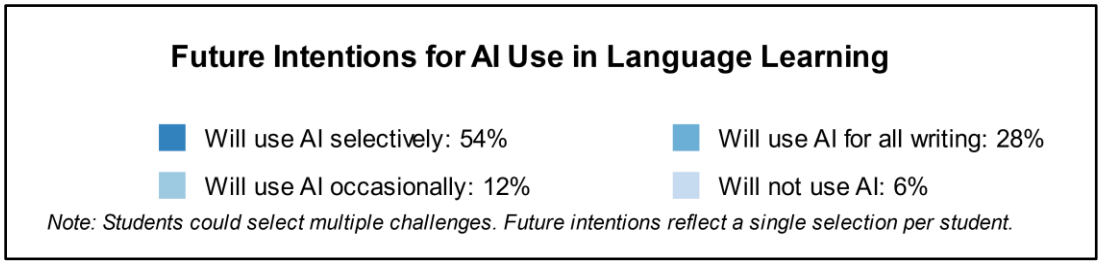

Figure 4C. Future Intentions for AI Use in Language Learning

As shown in Figure 4C, most students reported strong intentions to continue using AI tools in future language learning tasks. This suggests that beyond short-term error correction, AI-assisted revision may foster ongoing learner engagement and autonomy. These implications merit further exploration in future research.

6. Conclusion

This study investigated how Japanese elementary-level EFL university students identify and correct language errors through AI-assisted revision. The findings demonstrate that AI tools help students develop enhanced awareness of their error patterns across grammatical, lexical, and discourse dimensions, supporting the development of metalinguistic awareness that may contribute to long-term language development.

The results reveal that grammatical structure awareness, particularly regarding articles, verb tenses, and subject-verb agreement, represents the most significant area of development for Japanese EFL learners. This finding aligns with previous research indicating that these grammatical features are particularly challenging for Japanese learners due to L1 interference. The AI-assisted revision process appears to make these non-salient features more visible, supporting Schmidt's noticing hypothesis and potentially facilitating acquisition.

Lexical precision and collocation awareness emerged as the second major area of development, with students recognizing limitations in their vocabulary range and word combination knowledge. This finding suggests that AI tools may help address the "lexical teddy bear" phenomenon described by Hasselgren (1994), where language learners rely on a limited set of familiar words rather than exploring more precise alternatives.

Syntactic complexity and discourse organization awareness represented the third significant area of development, with students recognizing limitations in their sentence structures and paragraph organization. This finding is particularly noteworthy as discourse-level issues often receive less attention in traditional error correction approaches but may significantly impact overall communication effectiveness.

The pedagogical implications of these findings are substantial. First, language instructors should consider integrating AI-assisted revision as a complement to traditional feedback approaches, particularly for addressing persistent error patterns influenced by L1 interference. Second, explicit instruction in how to interpret and apply AI feedback appears necessary to maximize benefits, as students need guidance in understanding the reasoning behind suggested changes. Third, the multi-stage approach used in this study, establishing baseline production before

introducing AI tools, may serve as an effective model for implementing AI-assisted revision in educational contexts.

This research contributes to our understanding of how technology can support language development by making error patterns more visible and providing immediate, personalized feedback. However, several limitations must be acknowledged. The voluntary nature of participation may have biased the sample toward more motivated learners, and the short-term nature of the intervention does not address whether awareness gains persist over time or transfer to independent writing.

Future research should investigate the long-term effects of AI-assisted revision on students' independent writing ability, examining whether the error awareness gained through this process transfers to new writing tasks without AI assistance. Additionally, comparative studies of different AI tools and their effectiveness for specific error types would provide valuable insights for tool selection. Finally, research examining how instructor guidance can enhance the effectiveness of AI-assisted revision would contribute to developing optimal implementation strategies.

In conclusion, AI-assisted revision appears to enhance Japanese EFL learners' awareness of specific language errors, particularly those influenced by L1 interference. By making error patterns visible and providing immediate alternatives, AI tools may serve as valuable resources for developing the metalinguistic awareness necessary for language development, complementing traditional instruction and potentially fostering greater learner autonomy.

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