

PRE-SERVICE TEACHERS' PERCEPTIONS OF THE USE OF GENAI AND TRADITIONAL GRAMMAR-CHECKING TOOLS FOR ENGLISH WRITING

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Abstract

The increasing integration of artificial intelligence (AI) in English language education necessitates an understanding of pre-service teachers' perceptions—defined in this study as their attitudes, beliefs, and evaluations—towards AI-based writing tools. This research examines how pre-service English teachers perceive the use of Generative AI (GenAI) tools, specifically ChatGPT and GeminiAI, which primarily assist in content generation and idea development, compared to traditional grammar-checking tools such as Grammarly and Quillbot, which focus on grammar correction and structural refinement. Addressing the research gap in pre-service teachers' perspectives, this qualitative case study involved 15 participants selected through purposive sampling, with in-depth interviews conducted among five participants who demonstrated extensive prior use of both tool types. Data were analyzed thematically to identify key patterns. Findings reveal that GenAI tools are valued for facilitating idea elaboration and providing detailed linguistic feedback, while traditional grammar checkers are appreciated for their accuracy and ease in correcting grammatical errors. However, challenges include the complexity of GenAI feedback, potential over-reliance leading to diminished independent writing development, and ethical concerns such as data privacy and originality risks. The study concludes that while AI-based writing tools enhance writing proficiency and learning autonomy, teacher education programs should provide structured training to foster critical awareness and responsible integration of these technologies to develop both pedagogical competence and students' independent writing skills.

Keywords: *Generative AI, grammar checkers, pre-service teachers' perceptions, writing development, ethical considerations*

INTRODUCTION

In recent years, generative AI (GenAI) technologies have revolutionized English as a Foreign Language (EFL) learning, particularly in writing instruction. Researchers and educators

increasingly integrate AI tools to enhance students' writing performance through in-depth linguistic analysis and comprehensive feedback (Ghufron & Rosyida, 2018; O'Neill & Russell, 2019; Kim & Song, 2024). These technologies facilitate grammar checking and improve overall writing accuracy, thereby supporting both teachers and students in achieving writing proficiency (Sumakul et al., 2022). On the other hand, traditional grammar-checking tools, such as Grammarly, remain highly valued for their simplicity, speed, and user-friendly interface (Koltovskaia, 2020). Grammarly's automatic written corrective feedback (AWCF) assists students in self-study and enhances linguistic awareness (Barrot, 2023b). Similarly, QuillBot is widely used for paraphrasing and basic editing in academic writing courses (Kurniati & Fithriani, 2022). Users often choose these traditional tools for their ability to quickly identify and correct grammatical errors (Godwin-Jones, 2022).

In contrast, GenAI tools such as ChatGPT and GeminiAI extend beyond grammar correction by offering nuanced feedback, idea development support, and explanations of linguistic conventions (Dizon & Gayed, 2021; Crompton & Burke, 2023; Tan, 2023). While traditional grammar checkers primarily address surface-level errors, GenAI tools address higher-order writing concerns, such as idea organization and cohesion (Fitria, 2021; Liu et al., 2023). However, some instructors caution that GenAI may inhibit students' critical thinking and foster over-reliance on AI outputs, potentially undermining independent writing skills (Wang, 2024; Mintz et al., 2023; Su et al., 2023). Furthermore, institutional scepticism and critical discourse surrounding GenAI may prevent students from openly sharing their experiences (Chan & Hu, 2023).

Previous studies have investigated the integration of both GenAI and traditional grammar checkers in language learning. For example, Kohnke (2024) found that while GenAI tools such as ChatGPT provide more comprehensive feedback compared to Grammarly, students expressed concerns about data privacy and dependence. Similarly, Schmidt-Fajlik (2023) reported that ChatGPT offered more detailed explanations for Japanese EFL students than Grammarly and ProWritingAid, enhancing grammatical accuracy but requiring greater cognitive processing. Meanwhile, Yang (2022) examined pre-service teachers' perceptions of AI chatbots and found them effective for facilitating interactive communication and reducing language anxiety, despite limitations in nuanced language guidance.

Besides these pedagogical benefits, ethical considerations remain a key concern (Adams et al., 2023). Data privacy, ownership, and AI biases pose challenges in educational settings (Villegas-Ch & García-Ortiz, 2023; Pack & Maloney, 2024). Alharbi (2023) highlights that while AI tools promote rapid and detailed feedback, they may reduce the authenticity of student work and their cognitive engagement. Kohnke (2024) further emphasizes that GenAI's instructional advantages must be balanced with critical awareness to avoid dependence and maintain writing autonomy.

Although prior research has explored students' experiences with AI tools, few studies have specifically examined pre-service teachers' perceptions of both GenAI and traditional grammar checkers. This gap is significant, as pre-service teachers not only utilize these tools for their own writing development but will also evaluate their pedagogical relevance in future

classrooms. Understanding their perspectives is essential to inform teacher education programs about responsible AI integration.

This study investigates pre-service teachers' perceptions of the advantages, drawbacks, and ethical considerations of GenAI and traditional grammar-checking tools, with the aim of guiding teacher education curricula for AI-enhanced writing instruction. The findings reveal that while GenAI is appreciated for idea development and comprehensive feedback, traditional grammar checkers remain preferred for clarity, simplicity, and grammatical accuracy. However, concerns about over-reliance, data privacy, and diminished writing autonomy highlight the need for structured AI literacy training in teacher preparation programs. Therefore, this study addresses the following research questions; (1) How do pre-service teachers perceive the use of GenAI and traditional grammar-checking tools in English writing?, (2) What ethical concerns confront pre-service teachers regarding the utilization of these tools?, (3) What pedagogical implications emerge from integrating GenAI and traditional grammar-checking tools?.

METHOD

This study employed a qualitative case study design to explore pre-service teachers' perceptions of integrating Generative AI (GenAI) and traditional grammar-checking tools in English writing. A case study enables in-depth examination of contemporary phenomena within their real-life context (Yin, 2014). In this research, GenAI is operationally defined as AI-based content generation tools such as ChatGPT and GeminiAI, which assist users in idea development, text expansion, and linguistic explanations. In contrast, traditional grammar-checking tools, including Grammarly and Quillbot, focus primarily on surface-level grammatical correction, paraphrasing, and spelling refinement (Cresswell, 2014).

Fifteen pre-service teachers majoring in English language education were recruited through purposive sampling to ensure participants had sufficient familiarity with both GenAI and traditional grammar-checking tools (Lodico et al., 2010). A preliminary screening questionnaire confirmed participants' prior use of ChatGPT, GeminiAI, Grammarly, and Quillbot, alongside their frequency of use to ascertain adequate experiential diversity. All participants had completed core writing courses (Basic Writing, Intermediate Writing, Advanced Writing, and Scientific Writing), equipping them with advanced writing skills. However, it is acknowledged that reliance on self-reported data may not fully reflect actual usage practices or tool effectiveness in authentic writing contexts.

Two instruments were employed which include (1) questionnaire: A closed-ended Likert-scale questionnaire (Strongly Agree = 5 to Strongly Disagree = 1), adapted from Tsai (2020) and Kohnke (2024), assessed perceptions on tool usefulness, accessibility, ethical concerns, and influence on writing development. Despite minor contextual modifications, no formal piloting, validity, or reliability testing (e.g. Cronbach's alpha) was conducted, representing a methodological limitation, (2) Interviews: Semi-structured, open-ended interviews explored participants' experiences, ethical concerns, and pedagogical implications of both tool types.

Five participants were purposively selected for interviews based on willingness to participate and frequency of tool usage to maximize information richness. Each interview

lasted approximately 20–25 minutes, conducted in the participants' native language to facilitate expressiveness, and audio-recorded with consent. Transcripts were translated into English for reporting. Data saturation was assessed during analysis, with no new themes emerging after the fifth interview, indicating thematic sufficiency.

Data were analysed using thematic analysis following Braun and Clarke's (2016) six-phase framework: familiarization, coding, theme identification, reviewing, defining, and reporting. Coding was conducted manually and cross-checked with a research colleague to enhance credibility (Grbich, 2007). Throughout data collection and analysis, the first author maintained reflexive memos to acknowledge personal assumptions and potential researcher bias, given their professional background as an English education lecturer with extensive familiarity with AI writing tools. This reflexivity aimed to minimize interpretive bias and enhance analytical rigor.

RESULTS AND DISCUSSION

This section presents integrated findings from quantitative questionnaires and qualitative interviews, addressing the research questions on pre-service teachers' perceptions, ethical concerns, and pedagogical implications of using Generative AI (GenAI) tools (ChatGPT, GeminiAI) and traditional grammar-checking tools (Grammarly, Quillbot) for English writing. Perception in this study is operationally defined as participants' beliefs, evaluations, and attitudes towards the usefulness, ease of use, trust, and ethical considerations of these tools.

Comparative Perceptions of GenAI and Traditional Tools

The findings, summarized in Table 1 below, offer valuable insights into how these emerging and established technologies are viewed in terms of their effectiveness, accessibility, impact on skill development, usability, and associated ethical considerations.

Table 1. Pre-Service Teachers' Perceptions of GenAI and Traditional Grammar-Checking Tools

No.	Statements	SA	A	N	D	SD
1.	GenAI helps me develop ideas, improve the accuracy of grammar and organize my writing better.	73,3%	26,7%	0%	0%	0%
2.	GenAI tools make writing assistance more accessible to a wide range of users.	80,0%	20,0%	0%	0%	0%
3.	I feel that GenAI helps me improve my writing skills independently	53,3%	40%	6,7%	0%	0%
4.	GenAI tools offer seamless integration and easy-to-understand feedback	33,3%	53,3%	0%	13,3%	0%

5.	GenAI tools may cause ethical concerns about user privacy and using ideas that are not original.	53,3%	33,3%	13,3%	0%	0%
6.	Traditional Grammar checkers help me detect grammatical, spelling errors and organize my writing	73,3%	26,7%	0%	0%	0%
7.	Traditional Grammar checkers provide accessible support through straightforward correction methods.	80%	20%	0%	0%	0%
8.	Traditional grammar checkers provide clear and straightforward corrections that help me identify and fix mistakes with minimal effort.	73,3%	26,7%	0%	0%	0%
9.	Traditional grammar checkers help me learn grammar errors and writing independently.	33,3%	53,3%	13,3%	0%	0%
10.	Traditional grammar tools may also raise concerns about privacy and relying too much on corrections.	53,3%	33,3%	13,3%	0%	0%

SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Strongly Disagree

Quantitative results in table 1 revealed both tools were perceived positively; however, differences emerged in functional effectiveness. GenAI tools were valued for idea generation, organization, and comprehensive feedback (Statements 1–3), while traditional grammar checkers were perceived as more clear, straightforward, and user-friendly for error correction (Statements 6–8).

However, GenAI feedback was not always accessible, as only 33.3% strongly agreed it was easy to understand (Statement 4), indicating usability challenges. Both tool types raised ethical concerns about privacy and originality risks (Statements 5 and 10), underscoring participants' critical awareness.

Pre-Service Teachers' Perceptions Toward the Integration of GenAI and Traditional Grammar Checkers

This section presents the qualitative interview findings exploring pre-service teachers' perceptions of integrating Generative AI (GenAI) tools and traditional grammar checkers to support their English writing. The interviews provided nuanced insights that complement the questionnaire results, revealing how participants differentiate the functions, benefits, and limitations of these tools within academic writing contexts.

Enhancing Writing Quality

Participants described GenAI tools, such as ChatGPT and GeminiAI, as valuable for idea generation, organizing content, and enhancing coherence and complexity in their writing

drafts. These tools were perceived to facilitate higher-order thinking skills, including brainstorming and expanding initial ideas into more structured academic paragraphs. In contrast, traditional grammar checkers like Grammarly and Quillbot were primarily used for surface-level editing tasks, including grammar correction, paraphrasing, and spelling refinement, to polish the language accuracy and academic tone of their final drafts.

"I always use ChatGPT and GeminiAI because these tools really help me develop my writing ideas, which initially were dry, but after I asked for help from these tools, they became more organized, and the grammar used improved. I enjoy writing more because of these tools, but if the writing task isn't too difficult, I prefer using Grammarly or Quillbot instead, because they help check my grammar to make it sound more academic." (P1, interview)

As reflected by P1, GenAI tools enhanced idea elaboration and writing motivation, especially for complex tasks requiring creativity and structural reorganization. However, for simpler assignments, traditional grammar checkers were preferred due to their focused feedback on grammatical accuracy and ease of use.

"ChatGPT is very helpful for me in writing, I feel very assisted by this tool when I experience difficulties in organizing ideas and finding inspiration, and then after that, I will check the grammar and spelling mistakes in my writing on Quillbot." (P2, interview)

Similarly, P2 emphasized the sequenced use of tools, where GenAI supported the initial drafting and idea organization phase, followed by Quillbot for grammar and spelling verification. This combined approach reflects participants' strategic integration of both tools to improve writing quality efficiently.

Overall, those findings highlight that pre-service teachers do not view GenAI and traditional grammar checkers as interchangeable but instead utilize them for complementary purposes: GenAI for developing content depth and traditional tools for linguistic accuracy. These perceptions demonstrate their critical awareness of tool functions and informed choices in academic writing practices.

Challenges in Utilizing the Tools

The interview findings revealed that despite recognizing the benefits of both GenAI and traditional grammar-checking tools, pre-service teachers encountered several challenges in their usage. Participants noted issues related to the clarity, precision, and contextual relevance of feedback, as well as concerns about over-reliance and reduced critical engagement.

One major challenge identified was the complexity and overwhelming detail often present in GenAI-generated feedback. Participants explained that although tools such as ChatGPT and GeminiAI provide extensive explanations, these can be difficult to interpret, particularly when the feedback does not align with the intended context of their writing.

"Honestly, in my opinion, sometimes the feedback given by ChatGPT and GeminiAI is too long and detailed, making me confused while reading it, and these tools don't understand the context I'm discussing. In my writing, using Grammarly is quick and straightforward. So it's easy for me to understand, but sometimes it can't match the context of my writing, so I still need to double-check." (P5, interview)

As P5 highlighted, while Grammarly offered concise and easy-to-understand corrections, it also sometimes failed to consider contextual nuances, requiring additional manual verification. This indicates that both GenAI and traditional grammar checkers necessitate critical user evaluation, as neither tool consistently understands writing context with complete accuracy.

Another prominent concern was the potential for dependency on these tools. Participants expressed apprehension that frequent reliance on GenAI and grammar checkers could diminish their motivation to think critically and develop independent writing skills.

"I really enjoy using these tools because my writing becomes easier, I learn where my grammatical mistakes are, but on the other hand, I feel dependent on these tools, I become lazy in thinking and seem to write my drafts carelessly, after all, later ChatGPT and GeminiAI will develop it and Quillbot will paraphrase my writing." (P1, interview)

This reflection underscores the risk that overuse of AI tools may undermine writing autonomy, leading to superficial engagement with learning processes. Overall, while GenAI and traditional grammar checkers offer significant support in enhancing writing quality, their use must be strategic and judicious to avoid impeding critical thinking and personal growth in academic writing development.

Ethical Concerns of Integrating GenAI and Traditional Grammar-Checking Tools

Interviews revealed that pre-service teachers expressed significant ethical concerns regarding the use of GenAI and traditional grammar-checking tools, particularly related to data privacy and originality.

Privacy and Data Security

Participants were apprehensive about how their data is used and stored by these tools, noting a lack of transparency from developers.

"I always use ChatGPT and Quillbot alternately. Sometimes I wonder, will this personal data and the writing I input be used by this AI? In general, AI seems to combine all existing data from various sources. So, in my opinion, there should be more information about this user data." (P1, interview)

P1's concerns reflect a broader uncertainty about data confidentiality, indicating that users are unsure whether their inputs remain private or are stored and reused, leading to perceptions of potential vulnerability.

Originality and Plagiarism Risks

Participants also worried that reliance on AI tools compromises the originality and authenticity of their academic writing, potentially leading to plagiarism.

"I often worry that using GenAI like ChatGPT and GeminiAI will likely be detected as AI plagiarism, and this obviously contradicts the academic world. The writing is no longer original to me, and I lose meaning and creativity in my writing. Honestly, when I check the results with plagiarism detectors, the similarity scores are often high. So yes, I realize there's actually a lot of plagiarism in the final draft." (P2, interview)

As highlighted by P2, while GenAI aids idea generation and drafting, it can result in high similarity scores on plagiarism detectors, raising ethical concerns about academic honesty and diminishing personal creativity.

These findings indicate that although GenAI and traditional grammar checkers offer practical benefits in writing improvement, their use raises serious ethical considerations related to data privacy and academic integrity, necessitating cautious and informed integration within educational contexts.

Pedagogical Implications of Integrating GenAI and Traditional Grammar-Checking Tools

Interview findings revealed that using GenAI and traditional grammar checkers positively influences pre-service teachers' writing development and pedagogical preparation. These tools not only correct errors but also support language comprehension and independent learning, while raising concerns about potential dependency.

Facilitating Language Comprehension and Autonomous Learning

Participants shared that these tools enhanced their understanding of linguistic concepts, providing explanations that promote self-directed learning without relying solely on peer feedback.

"In my opinion, using ChatGPT and Grammarly not only helps me correct my writing mistakes, but this tool also explains the reasons behind those mistakes and how to do it correctly. This will certainly help me if in the future I become a teacher, as the use of these tools will be very beneficial in understanding concepts." (P3, interview)

P3 highlighted that GenAI and grammar checkers improve comprehension of grammar rules, which is essential for their future teaching responsibilities.

"With these tools, I no longer have to struggle to ask questions; I just open them up (Grammarly and GeminiAI), type in what I don't understand, and ask these tools to correct my writing. They truly make my writing life easier. I no longer need to wait for feedback from friends." (P4, interview)

P4 emphasized that these tools promote autonomous and self-regulated learning, enabling efficient problem-solving without waiting for external feedback.

Balancing AI Utilization and Writing Independence

However, participants also expressed concerns about over-reliance, which may hinder independent writing abilities and critical thinking.

"On the other hand, as a pre-service teacher, I have a fear of becoming too dependent on ChatGPT, GeminiAI, Grammarly and Quillbot; I'm worried that if I become too reliant on these tools, I might forget how to write well without their assistance. Whether I like it or not, I still have to understand the basics of grammar myself, not just rely on these tools." (P5, interview)

As noted by P5, while AI tools are valuable for improving writing, their use must be balanced with individual practice to maintain independent writing proficiency.

Overall, these findings suggest that GenAI and traditional grammar checkers serve as effective pedagogical aids, enhancing linguistic understanding and promoting autonomous

learning among pre-service teachers. However, their use must be judicious and integrated with traditional writing practice to prevent over-reliance and ensure long-term writing competence.

DISCUSSION

This study found that pre-service teachers perceive GenAI and traditional grammar-checking tools as complementary resources for improving their English writing skills. Traditional tools like Grammarly and Quillbot were valued for their quick, user-friendly grammar and paraphrasing assistance (Fitria, 2021; Kurniati & Fithriani, 2022; Syahnaz & Fithriani, 2023), though participants noted limitations in accuracy and depth of explanations (Fitriana, 2022; John & Woll, 2020).

In contrast, GenAI tools such as ChatGPT and GeminiAI were perceived to provide more comprehensive and contextual feedback, supporting idea generation, organization, and deeper linguistic understanding (Dizon & Gayed, 2021; Tan, 2023; Kohnke et al., 2023a). These tools functioned as “personal tutors,” enhancing metacognitive skills and Self-Regulated Learning (SRL), similar to findings by Safitri & Fithriani (2024). However, participants also reported that GenAI feedback could be overly complex or irrelevant (Wang, 2024), and its reliance on summarized data raised concerns about factual accuracy (Levene, 2023).

Despite their benefits, both GenAI and traditional tools raised ethical concerns, particularly regarding data privacy and academic integrity. Participants were uncertain about how AI systems use and store their data, reflecting broader concerns identified by Obidovna (2024), Devi et al. (2023), and Pack & Maloney (2024). Additionally, GenAI use prompted worries about originality, with participants reporting high similarity scores in plagiarism detectors, potentially undermining academic honesty.

From a pedagogical perspective, these tools enhance pre-service teachers’ understanding of grammar and writing structures, preparing them for future teaching (Vera, 2023; Zhang & Hyland, 2018; Yang, Gao & Shen, 2023). However, the risk of over-reliance may hinder the development of independent writing skills and critical thinking. As Amanda (2023) cautions, AI tools should remain supplementary resources rather than replacements for human writing proficiency.

In conclusion, while GenAI and traditional grammar checkers significantly support writing development, their integration into teacher education should emphasize balanced use, AI literacy, and ethical considerations to cultivate autonomous and reflective future educators.

CONCLUSION

This study explored pre-service teachers’ perceptions of GenAI tools (ChatGPT, GeminiAI) and traditional grammar checkers (Grammarly, Quillbot) in supporting their English writing. Findings revealed that participants perceived GenAI tools as valuable for developing ideas and providing in-depth feedback, while traditional grammar checkers were viewed as efficient for quick, clear grammatical corrections.

Participants appreciated how GenAI tools enhanced their understanding of language concepts and supported self-directed learning, yet some found the feedback overly complex

and contextually irrelevant, leading to confusion. Traditional tools were preferred for their simplicity, though they were perceived as limited in providing explanations for deeper learning. A recurring theme was the concern about dependency, with several pre-service teachers fearing that over-reliance might weaken their critical thinking and independent writing skills. Additionally, ethical concerns emerged regarding data privacy and originality, as participants questioned how their data was used and worried about plagiarism risks associated with AI-generated content. Pedagogically, participants believed these tools could strengthen their future teaching by enhancing their language awareness and confidence. However, they emphasized that AI tools should complement, not replace, human learning and writing practices, requiring balanced integration into teacher education.

Given the small, homogeneous sample size and reliance on self-reported perceptions, these findings should be interpreted with caution. Future research should involve larger, more diverse samples and examine how AI tool use impacts instructional design, curriculum development, and pre-service teacher training programs to foster critical, ethical, and autonomous writing practices in the era of AI-enhanced education.

REFERENCES

- Adams, C., Penitent, P., Lermeyer, G., & Rockwell, G. (2023). Ethical principles for artificial intelligence in K-12 education. *Computers and Education: Artificial Intelligence*, 4. <https://doi.org/10.1016/j.caeai.2023.100131>
- Alharbi, W. (2023). AI in the Foreign Language Classroom: A Pedagogical Overview of Automated Writing Assistance Tools. *Education Research International*, 2023. <https://doi.org/10.1155/2023/4253331>
- Aljabr, F. S., & Al-Ahdal, A. A. M. H. (2024). Ethical and pedagogical implications of AI in language education: An empirical study at Ha'il University. *Acta Psychologica*, 251. <https://doi.org/10.1016/j.actpsy.2024.104605>
- Barrot, J. S. (2023). Using automated written corrective feedback in the writing classrooms: effects on L2 writing accuracy. *Computer Assisted Language Learning*, 36(4), 584–607. <https://doi.org/10.1080/09588221.2021.1936071>
- Cavaleri, M., & Dianati, S. (2016). You want me to check your grammar again? The usefulness of an online grammar checker as perceived by students. *Journal of Academic Language & Learning*, 10(1), 223.
- Clarke, V., & Braun, V. (2017). Thematic analysis. In *Journal of Positive Psychology* (Vol. 12, Issue 3, pp. 297–298). Routledge. <https://doi.org/10.1080/17439760.2016.1262613>

- Creswel, J. W. (2014). *Research Design (Qualitative, Quantitative and Mixed Methods Approaches)*.
- Daniels, P., & Leslie, D. (2013). *@CUE Grammar Software Ready for EFL Writers?*
- Dizon, G., & Gayed, J. M. (2021). Examining The Impact Of Grammarly On The Quality Of Mobile L2 Writing. *JALT CALL Journal*, 17(2), 74–92. <https://doi.org/10.29140/JALTCALL.V17N2.336>
- Ghufron, M. A., & Rosyida, F. (2018). The Role of Grammarly in Assessing English as a Foreign Language (EFL) Writing. *Lingua Cultura*, 12(4), 395. <https://doi.org/10.21512/lc.v12i4.4582>
- Godwin-Jones, R. (2022). Partnering with AI: Intelligent writing assistance and instructed language learning. *Language Learning & Technology*, 26(2). <http://doi.org/10125/73474>
- Karagkouni, E., & Sotiropoulou, P. (2023). ARTIFICIAL INTELLIGENCE IN EDUCATION: ETHICAL CONSIDERATIONS. *ICERI2023 Proceedings*, 1, 2862–2866. <https://doi.org/10.21125/iceri.2023.0742>
- Kim, H. S., & Song, E. (2024). Investigation of AI Grammar Checkers on Grammar Learning and Students' Perception in L2 Writing Context. *Korean Journal of English Language and Linguistics*, 24, 531–553. <https://doi.org/10.15738/kjell.24..202406.531>
- Kohnke, L. (2024). Exploring EAP students' perceptions of GenAI and traditional grammar-checking tools for language learning. *Computers and Education: Artificial Intelligence*, 7. <https://doi.org/10.1016/j.caeai.2024.100279>
- Kurniati, E. Y., & Fithriani, R. (2022). Post-Graduate Students' Perceptions of Quillbot Utilization in English Academic Writing Class. *Journal of English Language Teaching and Linguistics*, 7(3), 437. <https://doi.org/10.21462/jeltl.v7i3.852>
- Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2010). *METHODS IN EDUCATIONAL RESEARCH From Theory to Practice*.
- Nova, M. (2018). UTILIZING GRAMMARLY IN EVALUATING ACADEMIC WRITING: A NARRATIVE RESEARCH ON EFL STUDENTS' EXPERIENCE. *Premise: Journal of English Education*, 7(1), 80. <https://doi.org/10.24127/pj.v7i1.1300>

- Obidovna, D. Z. (2024). THE PEDAGOGICAL-PSYCHOLOGICAL ASPECTS OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN INTEGRATIVE EDUCATION. *International Journal Of Literature And Languages*, 4(3), 13–19. <https://doi.org/10.37547/ijll/Volume04Issue03-03>
- O’neill, R., & Russell, A. M. T. (2019). Stop! Grammar time: University students’ perceptions of the automated feedback program Grammarly. In *Australasian Journal of Educational Technology* (Issue 1).
- Parra, G. L., & Calero, S. X. (2019). Automated writing evaluation tools in the improvement of the writing skill. *International Journal of Instruction*, 12(2), 209–226. <https://doi.org/10.29333/iji.2019.12214a>
- Qassemzadeh, A., & Soleimani, H. (2016). The Impact of Feedback Provision by Grammarly Software and Teachers on Learning Passive Structures by Iranian EFL Learners. *Theory and Practice in Language Studies*, 6(9), 1884. <https://doi.org/10.17507/tpls.0609.23>
- Rahma, A., & Fithriani, R. (2024). THE POTENTIAL IMPACT OF USING CHAT GPT ON EFL STUDENTS’ WRITING: EFL TEACHERS’ PERSPECTIVE. *Indonesian EFL Journal*, 10(1), 11–20. <https://doi.org/10.25134/ieflj.v10i1.9222>
- Safitri, M., & Fithriani, R. (2024). Exploring Higher Education EFL Students’ Perception of AI Writing Tools in the 5.0 Era. *Jayapangus Press Cetta: Jurnal Ilmu Pendidikan*, 7(1). <https://jayapanguspress.penerbit.org/index.php/cetta>
- Schmidt-Fajlik, R. (2023). ChatGPT as a Grammar Checker for Japanese English Language Learners: A Comparison with Grammarly and ProWritingAid. *AsiaCALL Online Journal*, 14(1), 105–119. <https://doi.org/10.54855/acoj.231417>
- Smith, M. S. (2016). *Strategic Error as Style: Finessing the Grammar Checker*. https://scholarworks.gsu.edu/english_diss/167
- Syahnaz, M., & Fithriani, R. (2023). Utilizing Artificial Intelligence-based Paraphrasing Tool in EFL Writing Class: A Focus on Indonesian University Students’ Perceptions. *Scope: Journal of English Language Teaching*, 7(2), 210. <https://doi.org/10.30998/scope.v7i2.14882>
- Teng, M. F., & Ma, M. (2024). *Assessing metacognition-based student feedback literacy for academic writing*. <https://doi.org/10.1016/j.asw.2024.100811i>

- Toar, D. S. Y. G., Hamied, A. F., & Sukyadi, D. (2022). *LEARN Journal: Language Education and Acquisition Research Network Artificial Intelligence in EFL Classrooms: Friend or Foe?* <https://so04.tci-thaijo.org/index.php/LEARN/index>
- Vera, F. (2023). *Integrating Artificial Intelligence (AI) in the EFL Classroom: Benefits and Challenges*. <https://orcid.org/0000-0002-4326-1660>
- Villegas-Ch, W., & García-Ortiz, J. (2023). Toward a Comprehensive Framework for Ensuring Security and Privacy in Artificial Intelligence. *Electronics (Switzerland)*, 12(18). <https://doi.org/10.3390/electronics12183786>
- Wulandari, S., Laeli, A. F., & Astutik, I. (2024). Using Grammarly Software to Check the Problems in Essay Writing: EFL Pre-service Teachers' Perceptions. In *New Language Dimensions* (Vol. 5, Issue 1). <https://journal.unesa.ac.id/index.php/nld/index>
- Yang, H., Gao, C., & Shen, H. Z. (2024). Learner interaction with, and response to, AI-programmed automated writing evaluation feedback in EFL writing: An exploratory study. *Education and Information Technologies*, 29(4), 3837–3858. <https://doi.org/10.1007/s10639-023-11991-3>
- Zhang, Z., & Hyland, K. (2018). *Title: Student engagement with teacher and automated feedback on L2 writing*.

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