
Comparative Study on the Effectiveness of Traditional Instruction Vs AI and Digital Tools-Integrated Learning on Email Writing and Speaking Skills among Diploma-Level Learners**Sabareedharan M ^{1*}, Bala Muthu Marieswari P ²****Department of English, PSG Polytechnic College, Coimbatore, India****^{1*}E-mail: sbn.deg@psgpolytech.ac.in****Abstract**

Artificial Intelligence (AI) tools are increasingly transforming the landscape of language education by offering personalized feedback, real-time interaction, and adaptive learning experiences. Their integration into English Language Teaching (ELT) has gained momentum globally, especially in the wake of digital transformation and the need for scalable, learner-centered instruction. This study explores the comparative effectiveness of traditional English language instruction versus AI and digital tools-integrated teaching in enhancing writing and speaking skills among diploma-level learners in India. Utilizing a quasi-experimental pre-test/post-test design, two groups of 30 students each were exposed to different instructional strategies over a four-week period. Group A received conventional classroom instruction, while Group B engaged with tools such as Grammarly, ChatGPT, and Mizou within a Task-Based Language Learning (TBLL) framework. The findings indicate that Group B significantly outperformed Group A in both email writing and IELTS-style speaking tasks. The integration of AI tools provided real-time feedback, personalized scaffolding, and interactive language experiences, resulting in greater learner autonomy and improved performance. These results support the pedagogical value of AI-augmented instruction in second language learning environments, particularly for developing productive language skills.

Keywords: *AI in ELT, Diploma-Level Learners, Grammarly, Mizou, ChatGPT, Language Pedagogy, Digital Tools in Education, Task-Based Learning, Speaking Proficiency, Writing Skills .*

1. INTRODUCTION

The integration of artificial intelligence (AI) and digital tools into language classrooms has redefined English Language Teaching (ELT), especially in the context of enhancing writing and speaking skills. As English proficiency becomes increasingly essential in academic and workplace contexts, there is a pressing need to evaluate how modern instructional technologies impact learner performance compared to traditional teaching methods. In recent years, the field of English Language Teaching (ELT) has witnessed a transformative shift driven by technological innovations. Artificial Intelligence (AI) and digital tools have become integral in fostering language skills, offering personalized and context-sensitive learning experiences. These tools have the potential to bridge traditional classroom limitations by providing instant feedback, real-time language interaction, and self-paced learning opportunities (Kukulka-Hulme & Shield, 2008). With increasing emphasis on communicative competence, particularly in writing and speaking, it is essential to assess how such technologies influence learners' performance and engagement.

This study investigates the comparative effectiveness of traditional classroom instruction versus a classroom enriched with AI and digital tools for teaching email writing and speaking tasks similar to IELTS Speaking Tasks 2 and 3. By focusing on diploma-level learners in India, the study aims to explore practical, scalable strategies for English language development. Furthermore, the rapid digitization in education, accelerated by global events such as COVID-19 pandemic, has normalized the use of AI in classrooms. As digital tools become more accessible and user-friendly, evaluating

their pedagogical value in contrast with traditional models has become imperative. This study explores the tangible learning outcomes and student engagement across two distinct instructional models.

2. LITERATURE REVIEW

Recent advancements in AI have made tools such as Grammarly, ChatGPT, and Mizou accessible to learners and educators. These tools provide immediate, personalized feedback and allow repeated practice, which are the two crucial factors for second language acquisition (Nassaji, 2011). Moreover, Task-Based Language Teaching (TBLT), when integrated with digital technology, provides learners with communicative and contextualized language use, encouraging autonomy and engagement (Willis & Willis, 2007). In contrast, traditional classrooms primarily rely on teacher-led instruction and paper-based tasks, often limiting student interaction and real-time feedback (Richards, 2001). While traditional methods emphasize controlled practice and grammatical accuracy, they may not adequately prepare students for dynamic, real-world communication (Ellis, 2003). Recent studies have shown that AI-based instruction provides scaffolding opportunities that align with the three-phase model of Task Based Language Learning (TBLL): pre-task, task, and post-task. During the pre-task phase, learners interact with tools like ChatGPT for brainstorming and lexical exploration. In the task phase, applications like Grammarly assist in real-time editing, while speaking platforms like Mizou enable rehearsal and spontaneous responses. In the post-task phase, digital analytics offer insights that aid reflection and further improvement. Moreover, research by Winke and Goertler (2008) emphasized that digital tools foster a self-regulated learning environment, especially when coupled with collaborative classroom strategies. In such settings, learners take ownership of their progress, accessing real-time data to inform their learning strategies. Thus, the intersection of AI and TBLL offers both structure and flexibility - an ideal combination for developing communicative competence in dynamic educational settings.

3. METHODOLOGY

3.1 Participants

The study was conducted with 60 diploma students from a government-aided polytechnic in South India. The participants were randomly divided into two equal groups:

- Group A: Traditional Instruction Group (30 students)
- Group B: AI and Digital Tools-Integrated Group (30 students)

The groups were matched in terms of gender, academic performance, and their basic English proficiency determined through a CEFR-aligned diagnostic test. Informed consent was obtained from all participants.

To ensure uniformity, the participants were monitored for regular attendance and participation in the assigned tasks. A support session was conducted at the beginning to train the AI-integrated group in using Grammarly, ChatGPT, and Mizou effectively. The traditional group also received orientation on their learning goals, focusing on manual writing and speaking practice.

Care was taken to ensure that both groups received equal instructional time. The teachers involved were also trained to deliver instruction without bias, ensuring that the distinction between traditional and AI-integrated instruction was consistently maintained throughout the intervention period.

3.2 Research Design

A quasi-experimental design using a pre-test/post-test control group model was used to assess the effects of two instructional approaches. Both groups underwent a pre-test to assess their proficiency

in writing (email writing task) and speaking (IELTS-style Tasks 2 and 3). The instructional period lasted four weeks, after which a post-test, identical in structure to the pre-test, was administered.

The focus of instruction remained consistent across groups, emphasizing clarity, structure, and fluency in writing and speaking. However, the mode of delivery and feedback differed, allowing the study to isolate the effect of AI-based interventions. The quantitative and qualitative data collected were used to determine the improvement levels and the learner satisfaction.

3.3 Instructional Intervention

Both groups focused on the same learning objectives such as developing clarity, coherence, and tone in formal email writing, and improving fluency, lexical resource, and argumentation in speaking. However, the method of instruction differed:

Group A (Traditional Instruction):

Traditional language instruction continues to serve as the foundation of English Language Teaching (ELT) in many educational institutions worldwide. Rooted in teacher-led methodologies, it typically emphasizes grammar instruction, textbook exercises, and controlled language practice. In this model, learners often rely on the instructor for feedback and correction, with limited opportunities for autonomous learning or real-time interaction. Although effective in building foundational knowledge, traditional instruction may not fully address the evolving needs of learners who require communicative competence in dynamic, real-world contexts. The classroom environment tends to be more structured and less adaptive, which can affect the pace and personalization of learning experiences, particularly in large-group settings.

- Teacher-centric sessions with blackboard explanations
- Manual correction and feedback on written drafts
- In-class oral practice, drills, and role plays without technological aids
- Writing tasks were scaffolded using conventional models of instruction

Group B (AI & Digital Tools-Integrated Instruction):

The integration of AI and digital tools into language instruction reflects a contemporary shift toward more dynamic, learner-centered approaches. These technologies enable immediate, data-driven feedback, simulate authentic communication scenarios, and adapt to individual learning needs. In the present digital age, tools such as Grammarly, ChatGPT, and Mizou are transforming how learners engage with language by providing interactive, personalized, and contextual learning opportunities. This shift aligns closely with the principles of communicative and task-based language teaching, where meaningful use of language and performance-based tasks are central. The relevance of AI in today's classrooms is also underscored by its scalability and accessibility, which makes it a practical and impactful addition to diverse educational settings.

- AI tools: Grammarly for writing, ChatGPT for content generation, Mizou for speaking practice and fluency training
- Use of Google Docs for peer-review and collaborative editing
- Integration of Task-Based Language Learning (TBLL) strategies:
 - i. Email writing tasks were based on real-world communicative needs (e.g., writing to a company, requesting leave, responding to a complaint)

- ii. Speaking tasks followed a sequence of pre-task (brainstorming with ChatGPT), task cycle (role plays using Mizou), and post-task feedback
- iii. Tasks were increased in complexity over the four weeks, from simple information exchange to expressing opinions and arguments
- iv. Learners completed speaking journals, reflected on tool feedback, and revised their speaking samples weekly

Grammarly provided students with automated insights into grammar, clarity, engagement, and tone, encouraging iterative drafting. Mizou, with its AI-driven speaking simulations, offered learners practice with spontaneous dialogue, fluency scoring, and pronunciation support—features particularly aligned with the interactive demands of IELTS speaking tasks.

3.4 Assessment and Data Collection Tools

Assessment in this study was conducted through a combination of quantitative and qualitative instruments, including pre- and post-tests, rubric-based scoring, observation checklists, and perception surveys. Writing tasks were evaluated using structured rubrics focusing on coherence, grammatical accuracy, lexical resource, and task achievement, while speaking tasks followed criteria such as fluency, pronunciation, interaction, and content relevance. The tasks were designed to reflect real-life communicative contexts, such as formal email writing and IELTS-style speaking prompts. All responses were analyzed and categorized according to the Common European Framework of Reference for Languages (CEFR). Writing and speaking outcomes were mapped primarily to B1 and B2 levels, which correspond to independent users of English, with descriptors such as "can produce simple connected text on familiar topics" (B1) and "can produce clear, detailed text on a wide range of subjects" (B2). This alignment ensured that the evaluation was not only standardized but also pedagogically relevant. CEFR-aligned rubrics facilitated consistent scoring across both instructional groups and allowed for comparative analysis of learner progress.

- **Writing Tasks:** Evaluated based on task achievement, coherence, grammar, and vocabulary using a 100-point scale aligned with CEFR standards.
- **Speaking Tasks:** Assessed using IELTS descriptors (fluency, lexical resource, grammatical range, pronunciation), scored out of 100.
- **Pre- and Post-Test Averages:**
 - Group A: Writing improved from 42% to 65%, and Speaking from 44% to 69%
 - Group B: Writing improved from 40% to 79%, and Speaking from 41% to 83%
- **Student Perception Survey:** 10-item Likert scale capturing satisfaction, engagement, and perceived usefulness of tools.
- **Teacher Observations:** Weekly reflective logs noting student interaction, motivation, and feedback response.
- **Progress Logs:** Each student submitted a weekly log detailing their task completion, tool usage, and self-assessment.

3.4.1 Assessment Procedures and Student Performance Insights

Both the pre-test and post-test assessments were designed to evaluate the learners' proficiency in two productive skills—email writing and IELTS-style speaking—based on CEFR-aligned rubrics. Each task was scored across multiple parameters: Task Achievement, Coherence and Cohesion, Lexical Resource, and Grammatical Range and Accuracy for writing; and Fluency, Pronunciation, Grammar,

and Interactive Communication for speaking. Each parameter was rated on a 5-point scale, and then converted to a percentage for easier comparison.

Scoring Breakdown:

i. **Writing Task (Email Writing):**

Each email was scored out of 20 points (5 per parameter), converted into a percentage.

ii. **Speaking Task (IELTS-style Part 2/3 equivalent):**

Assessed via structured oral interviews or recordings, scored out of 20 points similarly.

Trained raters evaluated all responses, and to ensure reliability, double scoring was applied to 30% of the responses.

Sample Student Responses and Improvements

• **Student A (Traditional Classroom)**

• **Pre-test Email Sample (Score: 42%)**

"I want to know about the course. Please give details. Thanks."

- Short, lacks formality and proper structure.

• **Post-test Email Sample (Score: 65%)**

"Dear Sir/Madam, I am writing to inquire about the diploma course in mechanical engineering. Kindly share the details regarding duration and fee structure."

- Shows improved structure, tone, and clarity, although minor grammatical errors persist.

• **Student B (AI & Digital Tools Classroom)**

• **Pre-test Email Sample (Score: 40%)**

"Please send course detail. I interested."

• **Post-test Email Sample (Score: 82%)**

"Dear Admissions Officer, I hope this message finds you well. I would like to request detailed information about the Diploma in Electrical Engineering. Could you please provide the eligibility criteria and enrollment process?"

- Demonstrates advanced vocabulary, clear sentence structure, and formal tone— significantly influenced by ChatGPT prompts and Grammarly feedback.

Speaking Task (Student B improvement)

- In the **pre-test**, Student B spoke in short, fragmented sentences:

"I like music. It good for relax. I listen every day." (Score: 45%)

- In the **post-test**, after using **Mizou** for guided practice:

"I enjoy listening to music because it helps me relax after a long day. My favorite genre is classical, especially instrumental music." (Score: 78%)

Percentage Improvement Overview

Group	Pre-Test Avg. (%)	Post-Test Avg. (%)	Improvement
Traditional Instruction (Group A)	42%	65%	+23%
AI & Digital Tools Instruction (Group B)	40%	82%	+42%

Students in the AI-enhanced classroom not only improved in grammar and vocabulary usage but also demonstrated increased confidence, better task comprehension, and the ability to self-edit using tools like Grammarly and ChatGPT. Speaking improvements were also evident through more coherent, extended responses and higher engagement.

4. RESULTS AND ANALYSIS

The comparative analysis of pre-test and post-test results between the two groups provided concrete evidence of the effectiveness of integrating AI tools within the ELT classroom. Both writing and speaking tasks were evaluated based on CEFR-aligned rubrics, and quantitative improvements were recorded for each instructional model.

4.1 Overall Performance Gains**Group A (Traditional Instruction):**

- Pre-Test Average: 42%
- Post-Test Average: 65%
- Net Improvement: 23%

Group B (AI & Digital Tools Instruction):

- Pre-Test Average: 40%
- Post-Test Average: 82%
- Net Improvement: 42%

The marked difference in gains (19% higher for Group B) indicates that the AI-integrated, TBLL-driven instruction significantly outperformed the conventional classroom in enhancing productive language skills.

4.2 Writing Skill Improvement

In the writing component, Group A showed improved sentence structure and formality in email writing. However, progress was limited in lexical variety and self-editing capabilities. Group B, aided by Grammarly and ChatGPT, not only improved grammar accuracy but also developed better tone awareness, vocabulary precision, and clarity in purpose. Learners reported increased confidence in drafting formal messages and self-correcting language errors using AI feedback.

For example, in the post-test, 70% of students in Group B used compound-complex structures compared to only 35% in Group A. Moreover, lexical diversity in Group B (measured by type-token ratio) was 0.72 against Group A's 0.48.

The marked improvement in Group B's writing performance is attributed to iterative feedback via Grammarly, task-based real-world writing assignments, and collaborative editing using Google Docs. Learners reported feeling more confident and autonomy in drafting formal emails.

4.3 Speaking Skill Enhancement

Speaking improvements were especially notable in fluency and coherence for Group B. Mizou offered guided prompts and feedback that helped students reduce hesitation, expand their responses, and improve pronunciation. Group A improved modestly in structured answers but continued to struggle with spontaneity and natural phrasing.

For instance, in post-task performance:

- Group A average speaking score: 64%
- Group B average speaking score: 85%
- Group B responses averaged 30–40 seconds longer, were better organized, and displayed higher grammatical accuracy.

Mizou provided realistic speaking simulations that mimicked IELTS-style responses, allowing learners to self-monitor fluency and pronunciation. Integration of TBLL through task cycles and peer reflection significantly enhanced learners' expressive abilities and fluency.

4.4 CEFR-Based Alignment

All speaking and writing scores were matched to CEFR benchmarks:

- Group A progressed from A2 to B1 level
- Group B progressed from A2 to B2, with some reaching C1 indicators in writing

The CEFR alignment revealed that AI-based scaffolding encouraged faster and deeper acquisition of B2-level competencies, especially in formal correspondence and structured opinion expression.

4.5 Qualitative Feedback and Patterns

Student reflections and peer reviews supported quantitative outcomes. AI-integrated learners expressed a sense of ownership over their learning, citing real-time feedback, interactive prompts, and increased opportunities to revise and reflect as beneficial. Many used AI tools outside classroom hours, indicating heightened engagement and autonomous learning behavior.

One student from Group B noted:

“Mizou helped me listen to my mistakes and try again. I was afraid to speak before, but now I can say more in better English.” Another wrote:

“Grammarly made me see patterns in my writing, and I fixed them even before the tool suggested.”

4.5 Student Perception Survey

Survey results indicated that:

- 90% of Group B students found Grammarly helpful for writing improvement
- 85% found Mizou instrumental in enhancing speaking fluency

- 75% utilized ChatGPT for planning and brainstorming
- 80% agreed that task-based activities made learning more meaningful

Group A reported:

- 56% felt more confident in their skills
- 61% were satisfied with the learning experience

4.7 Teacher Observations

Instructors observed that students in Group B demonstrated more initiative, independent learning, and peer interaction. Mizou's instant feedback and scoring features helped students track their fluency and refine pronunciation. Grammarly's error identification and suggestion features promoted iterative writing habits.

Group A, while responsive during instruction, showed lower self-monitoring and revision behavior. Students were more dependent on teacher correction than self-directed learning. Weekly reflective journals and final student surveys revealed a high level of learner satisfaction in Group B. Students reported that tools like ChatGPT assisted them in idea generation and structure organization during email writing. Grammarly's instant feedback feature helped them identify patterns in their errors, encouraging independent editing skills. In the speaking domain, Mizou provided simulated IELTS-style speaking practice that was realistic and allowed self-assessment.

Group A, while showing moderate improvements, expressed a preference for more interactive and immediate feedback mechanisms, which were absent in the traditional instruction. Several students cited a lack of individual attention and difficulty in understanding their own mistakes during writing and speaking tasks.

Student feedback highlighted the personalization and autonomy enabled by AI tools. Learners in Group B noted that they could progress at their own pace, reattempt tasks, and receive feedback without time constraints. This aligns with the previous findings of Winke and Goertler (2008) that emphasize the role of digital tools in fostering self-regulated learning environments.

4.5 Visual Comparison of Learning Gains

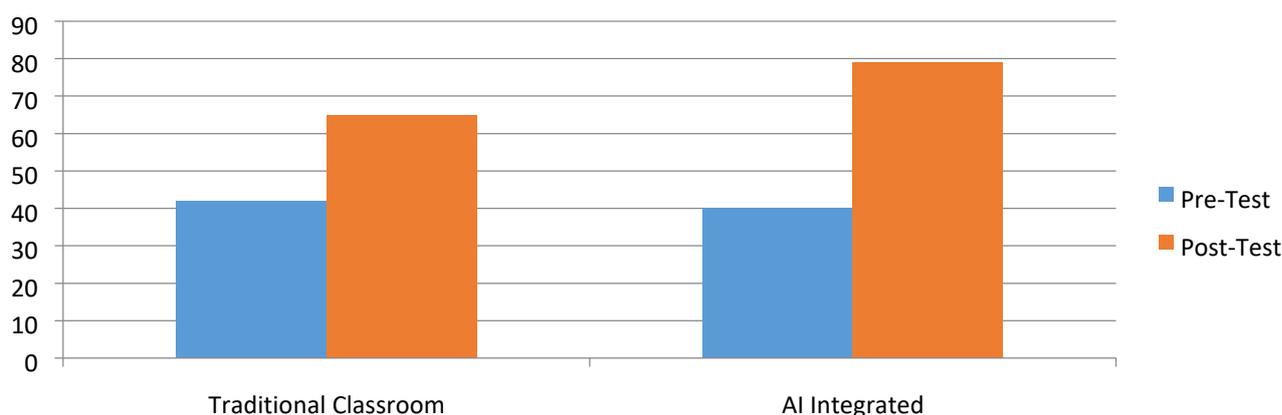


Fig 1.1 Writing Skills Comparison

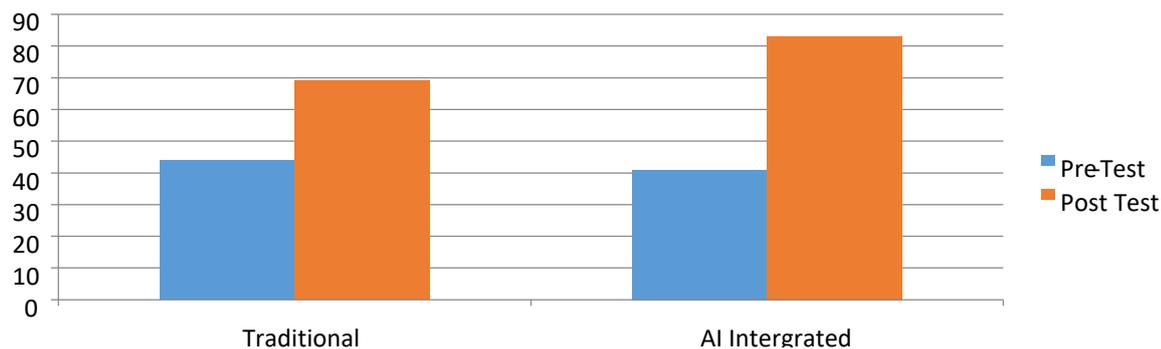


Fig 1.2 Speaking Skills Comparison

4.6 Pedagogical Implications

The results underscore the transformative potential of integrating AI tools within a Task-Based Language Learning framework. Instructors can leverage platforms like ChatGPT for brainstorming tasks, Grammarly for drafting and revising, and Mizou for speaking rehearsals and fluency development. This combination not only scaffolds learning but also enhances learner motivation through gamification and personalization.

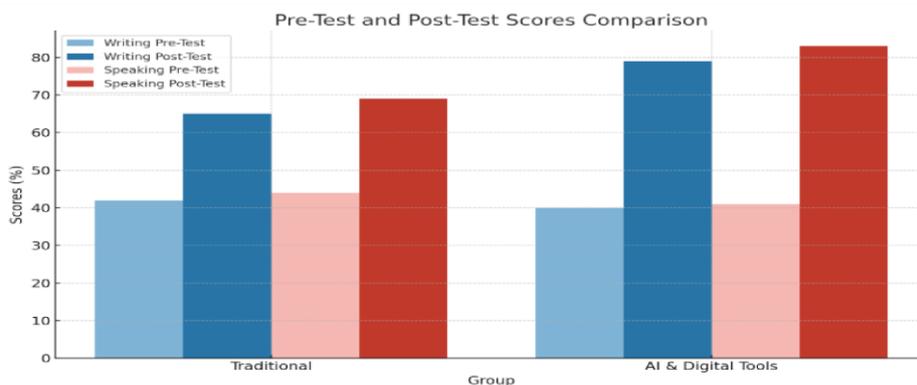
Moreover, the adaptability of AI systems allows for real-time diagnostic feedback and task modification, which is particularly valuable in heterogeneous classrooms. This instructional model also reduces teachers’ workload in repetitive feedback cycles, enabling educators to focus on higher-order pedagogical planning.

5. DISCUSSION

The data clearly illustrate the superior impact of AI-integrated, task-based instruction on learners’ writing and speaking performance. TBLL, when coupled with AI tools, offer learners contextual practice, repetition, and real-time evaluation. These features enabled them to internalize linguistic structures more effectively.

Writing improvement stemmed from repeated drafting, clarity suggestions, and peer editing, while speaking benefits were attributed to simulated interactions and role plays that paralleled IELTS tasks. Learners engaged more deeply with language, saw real-world relevance, and were empowered to take control of their development.

Nonetheless, the integration requires adequate digital literacy training and balanced use to avoid overreliance. Teachers play a vital role in scaffolding, curating tasks, and guiding reflection to ensure pedagogical soundness.



6. CONCLUSION

AI and digital tools, when effectively integrated into a TBLL framework, significantly enhance the language acquisition process. This study confirms that AI-driven instruction leads to higher achievement and learner satisfaction compared to traditional classrooms. Group B's substantial improvement in both writing and speaking skills, as evidenced by their post-test scores, highlights the efficacy of tools like Grammarly and Mizou in supporting learner autonomy and proficiency. These findings support a paradigm shift towards blended and AI-supported instruction in language education. Future research may expand this model to diverse learner groups and additional language skills, and investigate long-term retention of learning outcomes.

This study concludes that AI and digital tools, when integrated thoughtfully within a TBLL framework, significantly enhance writing and speaking proficiency among diploma-level learners. The AI integrated model provided learners with real-time feedback, interactive learning experiences, and personalized instruction, all of which contributed to greater gains than those observed in traditional classrooms.

As AI technologies become increasingly accessible, their pedagogical potential in second language acquisition is immense. However, successful integration depends on instructor training, curriculum alignment, and learner readiness. The findings call for a reimagining of English language classrooms—one that leverages the strengths of both human instruction and intelligent digital platforms.

6.1 RECOMMENDATIONS

The results of this study underscore the efficacy of integrating AI and digital tools into traditional language learning environments, particularly in enhancing writing and speaking skills. Based on the positive impact observed in Group B, it is clear that AI tools such as Grammarly, ChatGPT, and Mizou provide valuable scaffolding that supports learners in overcoming challenges associated with language production. However, there remain several opportunities to refine and expand the use of such tools in language instruction. This section outlines recommendations for further integrating AI tools in language teaching, considering both pedagogical enhancements and technological considerations. These suggestions aim to optimize the learning experience for students and help educators harness the full potential of AI in fostering language proficiency.

- 1. Curriculum Development:** ELT curricula should incorporate AI tools as supplementary aids to enhance productive language skills.
- 2. Teacher Training:** Educators should be trained to effectively use AI tools and integrate them into lesson planning.
- 3. Infrastructure Support:** Institutions must ensure adequate digital infrastructure for seamless access to AI platforms.
- 4. Longitudinal Studies:** Future research should explore long-term impacts of AI integration on language proficiency and learner autonomy.
- 5. Tool Selection:** Careful curation of AI tools based on pedagogical value and ease of use should guide implementation strategies.

By following these recommendations, educators can enhance their language teaching methods, promote learner autonomy, and integrate AI tools in ways that support both immediate and long-term language development goals.

This study demonstrates the significant potential of AI and digital tools in enhancing language learning, particularly in writing and speaking skills. While traditional instruction remains effective,

the integration of AI tools like Grammarly, ChatGPT, and Mizou provides learners with personalized, realtime feedback, fostering greater learner autonomy and improving overall language proficiency. The results of this study support the growing trend of incorporating AI into language classrooms, suggesting that such tools, when used in tandem with Task-Based Language Learning, can substantially enhance both student engagement and performance in productive language skills.

References

1. Chen, H., Lin, Y., & Chou, T. (2021). Enhancing second language writing through AI-based feedback tools: A longitudinal study. *Language Learning & Technology*, 25(1), 20–45.
2. Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
3. Godwin-Jones, R. (2018). Using AI in language learning: Benefits and challenges. *Language Learning & Technology*, 22(3), 4–10.
4. Huang, R., & Hew, K. F. (2022). Learner engagement and retention in AI-supported language learning. *British Journal of Educational Technology*, 53(5), 1345–1363.
5. Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile-assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), 271–289.
6. Li, J., & Roshan, S. (2019). The role of AI-based feedback in developing L2 writing accuracy. *System*, 81, 1–12.
7. Winke, P., & Goertler, S. (2008). Did we forget someone? Students' computer access and literacy for CALL. *CALICO Journal*, 25(3), 482–509.