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INTEGRATING AI CHATBOTS INTO LANGUAGE TEACHING: INSIGHTS FROM A PRACTITIONER'S PERSPECTIVE

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ABSTRACT

The growing presence of artificial intelligence (AI) in education has opened new possibilities for language teaching, particularly through the use of conversational chatbots. This paper explores the pedagogical potential of AI chatbots from the perspective of a practicing teacher, focusing on their role as supplementary tools for language learning. Drawing on recent research and classroom-informed reflection, the study examines how chatbots can support learners' communicative practice, promote autonomy, and create low-anxiety environments for language use. At the same time, it critically addresses key limitations, including inconsistent linguistic accuracy, limited pragmatic understanding, and concerns related to data privacy. The findings suggest that while AI chatbots are not yet capable of replacing human interaction, they can meaningfully enhance language instruction when integrated with clear pedagogical purposes. The paper concludes by offering practical implications for teachers and highlighting the need for more context-sensitive research on the long-term use of AI in language education.

KEYWORDS: *AI chatbots; language teaching; conversational agents; teacher perspective; learner autonomy; technology integration; computer-assisted language learning (CALL).*

1. INTRODUCTION

The integration of artificial intelligence (AI) into education has accelerated rapidly in recent years, reshaping how teaching and learning are conceptualized across disciplines. In the field of language education, AI-powered tools—particularly conversational chatbots—have emerged as promising resources for supporting learners' communicative development. Advances in natural language processing (NLP) and machine learning have enabled these

systems to simulate human-like interaction, offering learners opportunities to engage in dialogue beyond the constraints of the traditional classroom (Adamopoulou & Moussiades, 2020; Huang et al., 2022).

Within the context of language teaching, chatbots are often positioned as virtual conversational partners that can facilitate practice in speaking and writing. Unlike conventional computer-assisted language learning (CALL) tools, which tend to focus on discrete skills, chatbots provide more dynamic and interactive experiences. They allow learners to experiment with language use in a low-pressure environment, which may reduce anxiety and increase willingness to communicate (Ayedoun et al., 2015). In addition, their accessibility and availability make them particularly valuable in contexts where exposure to authentic language input is limited.

Despite these affordances, the pedagogical value of chatbots remains a subject of ongoing debate. Previous studies have highlighted both the potential benefits and the limitations of these technologies. On the one hand, chatbots have been associated with increased learner engagement, improved vocabulary acquisition, and enhanced motivation (Fryer & Carpenter, 2006; Wollny et al., 2021). On the other hand, concerns persist regarding their linguistic reliability, including inaccuracies in grammar, limited contextual understanding, and difficulties in handling pragmatic aspects of communication such as humor or implied meaning (Huang et al., 2022; Okonkwo & Ade-Ibijola, 2021). These challenges raise important questions about the extent to which chatbot-mediated interaction can approximate authentic human communication.

Another critical issue relates to the role of teachers in adopting and integrating AI technologies. While research has extensively examined students' experiences with chatbots, there is comparatively less attention given to teachers' perspectives, particularly those of practitioners who are directly engaged in classroom instruction. Teachers play a central role in mediating the use of technology, shaping how tools are implemented and aligned with pedagogical goals. Their insights are therefore essential for understanding not only the practical benefits of chatbots but also the constraints that may influence their effective use in real educational settings.

Furthermore, the rapid proliferation of AI tools has outpaced the development of pedagogical frameworks that guide their integration. As a result, many educators remain uncertain about how to incorporate chatbots meaningfully into their teaching practices. This gap highlights

the need for research that is grounded in classroom realities and informed by teachers' professional experiences.

In response to these issues, the present paper adopts a practitioner-oriented perspective to explore the integration of AI chatbots in language teaching. Rather than focusing solely on technological capabilities, it seeks to examine how these tools can be used pedagogically to support language learning. Specifically, the study aims to (1) analyze the potential contributions of chatbots to communicative language practice, (2) identify key challenges associated with their use in educational contexts, and (3) propose practical implications for teachers seeking to integrate AI into their instructional design.

By foregrounding the voice of a practicing teacher, this paper contributes to the growing body of research on AI in education while addressing the need for more context-sensitive and pedagogically grounded discussions of chatbot use in language classrooms.

2. LITERATURE REVIEW

2.1. The Emergence of AI Chatbots in Language Education

The application of artificial intelligence (AI) in language education has evolved significantly over the past decades, particularly within the broader domain of computer-assisted language learning (CALL). Early digital tools primarily focused on grammar drills and vocabulary practice; however, recent developments in natural language processing (NLP) and deep learning have enabled more interactive and communicative applications, notably AI-powered chatbots (Caldarini et al., 2022; Luo et al., 2022). These conversational agents are designed to simulate human interaction, allowing learners to engage in dialogue through text or speech in increasingly sophisticated ways.

Chatbots are often categorized based on their design and functionality, including rule-based systems and generative models. While earlier systems relied on scripted responses, modern AI chatbots can process contextual input and generate adaptive responses, making them more suitable for language learning purposes (Adamopoulou & Moussiades, 2020). Their integration into messaging platforms and mobile applications has further expanded their accessibility, positioning them as ubiquitous tools in learners' daily lives.

From a theoretical standpoint, the use of chatbots aligns with communicative language teaching (CLT) and sociocultural theories of learning, which emphasize interaction as a key mechanism for language acquisition. By providing opportunities for meaningful communication, chatbots can function as mediational tools that support learners' linguistic

development (Bibauw et al., 2022). However, the extent to which these interactions approximate authentic human communication remains a central concern in the literature.

2.2. Pedagogical Affordances of Chatbots in Language Learning

A growing body of research highlights several pedagogical benefits associated with the use of chatbots in language learning contexts. One of the most frequently cited advantages is their potential to increase learners' willingness to communicate (WTC). Conversational agents can create a non-threatening environment in which learners feel less anxious about making mistakes, thereby encouraging more frequent language use (Ayedoun et al., 2015; Fryer et al., 2019).

In addition, chatbots offer opportunities for personalized and self-paced learning. Learners can interact with these systems at their own convenience, receiving immediate responses that support continuous practice outside the classroom (Huang et al., 2022). This flexibility is particularly valuable in foreign language contexts where exposure to authentic input is limited. Moreover, chatbots can provide repetitive practice without fatigue, which is beneficial for reinforcing language structures and vocabulary (Shawar, 2017).

Another important affordance is the potential for multimodal interaction. Many modern chatbots incorporate text, audio, images, and even augmented reality features, which can enhance learner engagement and cater to diverse learning preferences (Okonkwo & Ade-Ibijola, 2021). Empirical studies have also reported positive effects on vocabulary acquisition, grammatical development, and learner motivation (Bibauw et al., 2019; Huang et al., 2022).

Furthermore, chatbots have been explored as tools for fostering learner autonomy. By enabling independent practice, they shift part of the learning responsibility from the teacher to the learner, aligning with contemporary learner-centered approaches. This is particularly relevant in blended and flipped learning environments, where students are expected to engage with content beyond classroom instruction.

2.3. Limitations and Challenges of Chatbot Integration

Despite their potential, the use of chatbots in language education is not without limitations. One of the most persistent concerns relates to linguistic accuracy and reliability. Studies have shown that chatbots may produce grammatically incorrect or semantically inappropriate responses, which can mislead learners, particularly those at lower proficiency levels (Coniam, 2014; Huang et al., 2022).

Another significant challenge is the lack of pragmatic competence. While chatbots can handle straightforward exchanges, they often struggle with context-dependent language use, including idiomatic expressions, humor, and implied meaning (Farah et al., 2021). This limitation reduces the authenticity of interaction and may hinder the development of higher-level communicative skills.

The issue of sustained engagement has also been widely discussed. Although learners may initially find chatbot interaction novel and engaging, this interest can decline over time—a phenomenon commonly referred to as the "novelty effect" (Fryer et al., 2017). As a result, long-term integration of chatbots requires careful instructional design to maintain learner motivation.

In addition, ethical and privacy concerns have become increasingly salient. Many chatbot applications collect user data to improve performance, raising questions about data security and user consent. These concerns are particularly important in educational settings involving minors, where safeguarding personal information is a critical responsibility (Denecke et al., 2019).

2.4. Teacher Perspectives and Technology Acceptance

While much of the existing literature focuses on learners, the role of teachers in adopting chatbot technology is equally important. Teachers act as mediators between technology and pedagogy, and their perceptions significantly influence how tools are implemented in practice. The Technology Acceptance Model (TAM) has been widely used to examine factors affecting teachers' adoption of educational technologies, including perceived usefulness and ease of use (Venkatesh & Davis, 2000).

Research suggests that teachers generally hold positive attitudes toward chatbots, recognizing their potential to enhance language learning (Chocarro et al., 2021; Chuah & Kabilan, 2021). However, their willingness to integrate these tools into classroom practice is often more moderate. This discrepancy may be attributed to concerns about pedagogical effectiveness, lack of training, and uncertainty about how to align chatbot use with curriculum objectives.

Importantly, studies focusing on pre-service and in-service teachers indicate that familiarity with AI technologies remains limited (Yang, 2022). This highlights a gap between technological innovation and teacher preparedness, suggesting the need for targeted professional development. Moreover, there is a growing call for research that captures

teachers' lived experiences and practical insights, rather than relying solely on experimental or student-centered data.

2.5. Research Gap and Contribution of the Present Study

Although the literature provides valuable insights into the potential of chatbots in language learning, several gaps remain. First, there is a relative lack of studies that adopt a practitioner-oriented perspective, particularly those grounded in real classroom contexts. Second, while many studies focus on learning outcomes or technological features, fewer examine how chatbots can be meaningfully integrated into pedagogical practice.

Furthermore, existing research often treats chatbots as standalone tools, without sufficiently considering the broader instructional ecosystem in which they are used. There is a need for more nuanced analyses that account for the interaction between technology, pedagogy, and context.

In response to these gaps, the present study contributes to the field by offering a teacher-informed perspective on the integration of AI chatbots in language teaching. By combining insights from research and classroom practice, it seeks to provide a more holistic understanding of both the opportunities and challenges associated with this emerging technology.

3. METHODOLOGY

3.1. Research Design

This study adopts a qualitative-dominant mixed-methods design, combining classroom-based inquiry with descriptive quantitative data. Framed as a practitioner research study, the design allows for systematic examination of how AI chatbots can be integrated into language teaching within an authentic instructional setting.

A sequential explanatory approach was employed. Quantitative data from student reflections and usage patterns were first collected to identify general trends, followed by qualitative analysis to provide deeper pedagogical interpretation.

3.2. Research Context and Participants

The study was conducted in an upper secondary school where English is taught as a foreign language (EFL). A total of 36 students participated in the study.

The participants were distributed as follows:

- Grade level: 11th grade

- English proficiency: B1–B2 (CEFR)
- Gender: 14 male students (38.9%) and 22 female students (61.1%)

All participants were enrolled in the same class taught by the teacher-researcher, ensuring consistency in instructional delivery. The sample was selected through convenience sampling, reflecting the natural composition of the classroom.

Importantly, all 36 students completed the full four-week intervention, and their data were included in the analysis. No participants were excluded, ensuring consistency across all reported findings.

3.3. Instructional Procedure

The intervention was implemented over a four-week period, with students engaging in chatbot-supported activities both in and outside the classroom.

Students interacted with two AI chatbot platforms (general conversational AI tools accessible via mobile/web), selected for their accessibility and conversational capabilities.

The procedure included three stages:

1. Orientation (Week 1) Students were introduced to chatbot functionalities and trained in effective interaction strategies.
2. Guided Interaction (Weeks 2–3) Students completed structured communicative tasks using chatbots, including:

+ Role-play dialogues
+ Topic-based conversations (e.g., daily life, education, technology)
+ Opinion exchanges

Each student was required to complete at least 4 chatbot interaction sessions per week, with each session lasting approximately 15–20 minutes.

3. Reflection and Consolidation (Week 4) Students submitted written reflections and participated in group discussions evaluating their experiences.

3.4. Data Collection Methods

Data were collected from all 36 participants using three instruments:

- Student Reflection Reports (n = 36) Each student submitted one structured reflection per week, resulting in a total of 144 reflection entries (36 × 4 weeks).
- Chatbot Interaction Logs (n = 36) Students provided screenshots or summaries of their chatbot interactions, with a minimum of 8 recorded interactions per student across the study.

- Teacher Reflective Journal (4 entries) The teacher-researcher documented weekly observations, focusing on engagement, challenges, and emerging patterns.

3.5. Data Analysis

Quantitative Analysis

Descriptive statistics were used to analyze participation and engagement levels. Specifically:

- Frequency of chatbot use
- Average interaction time per student
- Self-reported engagement levels (based on reflection prompts)

All quantitative data were calculated based on the full sample (N = 36).

Qualitative Analysis

A thematic analysis (Braun & Clarke, 2006) was conducted on the 144 student reflections and teacher journal entries. The analysis followed these steps:

1. Data familiarization
2. Initial coding
3. Theme generation
4. Cross-validation of themes

Themes were categorized into three main domains:

+ Pedagogical affordances

+ Limitations and challenges

+ Learner engagement and perception

3.6. Ethical Considerations

All 36 participants were informed about the purpose of the study and agreed to participate voluntarily. Data were anonymized, and no personally identifiable information was collected. Students were also instructed not to share sensitive personal data when interacting with chatbot systems.

4. Results and Discussion

4.1. Patterns of Chatbot Use and Learner Engagement

Descriptive analysis of chatbot usage indicates a relatively high level of student engagement throughout the four-week intervention. As shown in Table 1, all 36 participants (100%)

completed the required interaction tasks, with most students exceeding the minimum requirement.

Table 1. Frequency and Duration of Chatbot Interaction (N = 36).

Measure	Mean	SD	Min	Max
Sessions per week	4.8	0.7	4	6
Average session duration (minutes)	18.6	3.2	12	25
Total interactions over 4 weeks	19.2	2.8	16	24

The data suggest that students were not only compliant with the assigned tasks but also demonstrated a willingness to engage more frequently than required. This finding supports previous research highlighting the accessibility and convenience of chatbot-based learning (Huang et al., 2022).

From a pedagogical perspective, the flexibility of chatbot interaction appears to have contributed to sustained engagement. Unlike traditional classroom activities, chatbot use allowed students to practice at their own pace, which may explain the relatively consistent participation rates across the four-week period.

4.2. Perceived Pedagogical Affordances

Students' reflections were analyzed to identify perceived benefits of chatbot integration. Three dominant themes emerged: increased willingness to communicate, enhanced learner autonomy, and reduced anxiety.

Table 2. Frequency of Reported Pedagogical Benefits (N = 144 reflections).

Theme	Frequency (n)	Percentage (%)
Increased willingness to communicate	102	70.8%
Learner autonomy	96	66.7%
Reduced language anxiety	88	61.1%
Vocabulary expansion	74	51.4%
Enjoyment and motivation	81	56.3%

A majority of students (70.8%) reported that chatbot interaction encouraged them to communicate more frequently in English. This aligns with earlier findings suggesting that AI-mediated environments can lower affective barriers and promote active participation (Ayedoun et al., 2015).

Learner autonomy was also strongly represented, with 66.7% of reflections emphasizing the ability to practice independently. From a teacher's perspective, this is particularly significant,

as it indicates that chatbots can extend learning beyond classroom boundaries without requiring constant supervision.

Interestingly, reduced anxiety emerged as a key factor. Students frequently noted that interacting with a chatbot felt less intimidating than speaking with peers or teachers. This supports the argument that AI tools can provide a psychologically safe space for experimentation with language.

4.3. Identified Limitations and Challenges

Despite these positive outcomes, several limitations were consistently reported.

Table 3. Reported Limitations of Chatbot Interaction (N = 144 reflections).

Limitation	Frequency (n)	Percentage (%)
Inaccurate or unnatural responses	85	59.0%
Limited contextual understanding	78	54.2%
Lack of error correction	72	50.0%
Repetitive responses	64	44.4%
Data privacy concerns	39	27.1%

The most frequently reported issue was the presence of inaccurate or unnatural responses (59.0%), which occasionally disrupted communication. This finding reinforces concerns in the literature regarding the linguistic reliability of chatbots (Coniam, 2014).

Additionally, more than half of the reflections highlighted limited contextual understanding, particularly in handling complex or ambiguous inputs. Students noted that chatbots sometimes failed to interpret meaning beyond literal expressions, which restricted deeper interaction.

The lack of corrective feedback was also identified as a limitation. While some students appreciated the uninterrupted flow of conversation, others expressed concern that errors went unnoticed. This raises important pedagogical considerations, particularly for lower-proficiency learners who rely on feedback for improvement.

4.4. Learner Engagement Over Time

An analysis of weekly reflections suggests a slight decline in perceived novelty, although overall engagement remained stable.

Table 4. Self-Reported Engagement Levels Across Weeks (Scale: 1–5).

Week	Mean	SD
Week 1	4.3	0.6
Week 2	4.1	0.7
Week 3	3.9	0.8
Week 4	3.8	0.9

While engagement scores decreased marginally over time, they remained above the midpoint, indicating sustained interest. This pattern may reflect the "novelty effect" described in previous studies (Fryer et al., 2017), where initial enthusiasm gradually stabilizes.

From a teaching perspective, this suggests that chatbot activities need to be pedagogically varied and purpose-driven to maintain long-term engagement.

4.5. DISCUSSION

The findings of this study both corroborate and extend existing research on the use of AI chatbots in language education. Consistent with prior studies (Ayedoun et al., 2015; Huang et al., 2022), the results demonstrate that chatbot-mediated interaction can significantly enhance learners' willingness to communicate. However, the present study adds a practitioner-oriented dimension by showing how this increased willingness is not merely a function of technological novelty, but also of reduced evaluative pressure within AI-mediated environments. From a sociocultural perspective, this suggests that chatbots may function as low-stakes mediational tools, enabling learners to engage in language practice within their zone of proximal development (Bibauw et al., 2022).

The strong presence of learner autonomy in the findings further supports arguments in the CALL literature that technology can shift the locus of control from teacher to learner (Huang et al., 2022). However, unlike some earlier studies that portray autonomy as an inherent benefit of digital tools, the current results indicate that autonomy is contingent upon task design and instructional scaffolding. Students engaged more meaningfully when chatbot activities were structured and goal-oriented, suggesting that autonomy in this context is not purely self-directed but pedagogically mediated. This insight aligns with recent calls for more nuanced interpretations of learner autonomy in technology-enhanced environments.

At the same time, the study confirms persistent limitations identified in previous research, particularly regarding linguistic accuracy and contextual understanding (Coniam, 2014; Okonkwo & Ade-Ibijola, 2021). The relatively high frequency of reported inaccuracies (59.0%) indicates that, despite advances in NLP, chatbot output remains uneven. Importantly,

this limitation has pedagogical implications beyond simple correctness. As noted in the literature, exposure to unreliable input may lead to fossilization of errors, especially among intermediate learners. The present findings reinforce this concern and suggest that uncritical reliance on chatbot interaction may be counterproductive in certain learning contexts.

Another key issue relates to the absence of corrective feedback. While some scholars argue that uninterrupted interaction may promote fluency (Fryer et al., 2019), the results of this study suggest a more complex picture. Students expressed both appreciation for the conversational flow and concern about the lack of error correction. This tension reflects a broader debate in second language acquisition (SLA) regarding the role of feedback in learning. From a pedagogical standpoint, the findings imply that chatbots should be supplemented with teacher-led feedback mechanisms to balance fluency development with accuracy.

The observed decline in engagement over time also aligns with the "novelty effect" documented in earlier studies (Fryer et al., 2017). However, the relatively modest decrease in engagement scores suggests that chatbot use retains a degree of sustained interest when embedded within structured instructional activities. This finding contributes to the literature by indicating that the novelty effect may be mitigated through pedagogical design, rather than being an inevitable limitation of technology use.

Importantly, this study highlights the central role of the teacher in mediating the effectiveness of chatbot integration. While much of the existing literature focuses on technological capabilities or learner outcomes, the present findings emphasize that pedagogical alignment is the determining factor in successful implementation. This supports the argument that technology should not be viewed as an autonomous driver of innovation, but rather as a tool whose value is shaped by instructional context and teacher expertise (Chocarro et al., 2021).

Finally, the findings point to a broader conceptual implication regarding the role of AI in language education. Rather than positioning chatbots as substitutes for human interaction, the results suggest that they function more effectively as complementary tools within a hybrid learning ecosystem. Their strengths—accessibility, flexibility, and low-anxiety interaction—address specific gaps in traditional instruction, while their limitations underscore the continued importance of human teachers in providing nuanced feedback, cultural context, and pedagogical guidance.

In sum, this study contributes to the growing body of research on AI in education by offering a context-sensitive, teacher-informed perspective. It underscores the need for a balanced

approach that recognizes both the affordances and constraints of chatbot technology, and it calls for further research that integrates technological innovation with pedagogical theory and classroom practice.

5. CONCLUSION

This study set out to explore the integration of AI chatbots in language teaching from a practitioner's perspective, with a particular focus on their pedagogical value and limitations. The findings indicate that chatbot-mediated interaction can meaningfully support language learning by increasing learners' willingness to communicate, fostering greater autonomy, and reducing affective barriers. These affordances highlight the potential of AI tools to extend learning beyond the classroom and create more flexible opportunities for communicative practice.

At the same time, the study also reveals several persistent challenges. Issues related to linguistic accuracy, limited contextual understanding, and the absence of corrective feedback continue to constrain the effectiveness of chatbot interaction. These limitations suggest that, despite rapid technological advancements, AI chatbots are not yet capable of replicating the depth and complexity of human communication in language learning contexts.

Overall, the study reinforces the view that the value of AI chatbots lies not in replacing teachers or traditional instruction, but in complementing existing pedagogical practices. Their effectiveness depends largely on how they are integrated into the instructional process, particularly in terms of task design, scaffolding, and teacher mediation. By foregrounding the perspective of a practicing teacher, this study contributes to a more grounded understanding of how emerging technologies can be applied in real classroom settings.

6. Pedagogical Implications

The findings of this study offer several important implications for language teachers seeking to integrate AI chatbots into their instructional practices.

First, chatbots should be used as supplementary tools rather than primary instructional resources. While they are effective in promoting fluency and engagement, their limitations in accuracy and feedback require careful pedagogical support. Teachers should therefore position chatbot activities as extensions of classroom learning, rather than replacements for direct instruction.

Second, the importance of task design cannot be overstated. Structured, goal-oriented activities—such as role-plays, guided discussions, and scenario-based interactions—appear to

enhance the quality of learner engagement. Without such structure, chatbot use may become repetitive or superficial, limiting its educational value.

Third, teachers should incorporate reflective and corrective components into chatbot-based learning. For example, students can be asked to review chatbot interactions, identify errors, and discuss alternative expressions. This approach helps mitigate the lack of built-in feedback and promotes deeper language awareness.

Fourth, attention should be given to learner training and digital literacy. Students need guidance on how to interact effectively with chatbots, including how to formulate questions, sustain conversations, and critically evaluate AI-generated responses. This is particularly important given the variability in chatbot accuracy.

Finally, issues related to data privacy and ethical use should be explicitly addressed. Teachers should ensure that students are aware of potential risks and adopt responsible practices when using AI tools, especially in educational settings.

7. Future Research

While this study provides valuable insights into the use of AI chatbots in language teaching, several areas warrant further investigation.

First, future research could adopt larger sample sizes and more diverse educational contexts to enhance the generalizability of findings. Comparative studies across different proficiency levels, age groups, and cultural settings would provide a more comprehensive understanding of chatbot effectiveness.

Second, there is a need for longitudinal studies that examine the long-term impact of chatbot use on language development. The present study, conducted over four weeks, captures short-term engagement but does not fully address sustained learning outcomes.

Third, future studies could incorporate more robust quantitative methods, such as experimental or quasi-experimental designs, to measure the impact of chatbot interaction on specific language skills (e.g., speaking fluency, grammatical accuracy, or vocabulary acquisition).

Fourth, further research is needed to explore the role of adaptive feedback and intelligent tutoring features in chatbot systems. As AI technology continues to evolve, the integration of more sophisticated feedback mechanisms may significantly enhance their pedagogical value.

Finally, more attention should be given to teacher-centered research, particularly studies that examine how educators design, implement, and evaluate AI-supported instruction in real

classroom settings. Such research is essential for bridging the gap between technological innovation and pedagogical practice.

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