Educational Administration: Theory and Practice
2024, 30(1), 8212-8217
ISSN: 2148-2403
https://kuey.net/

Research Article

Navigating The Dependency Of College Students Using AI Chatbots For Language Learning: A Phenomenology

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Citation: Jovito B. Madeja Phd et al (2024). Navigating The Dependency Of College Students Using AI Chatbots For Language Learning: A Phenomenology, *Educational Administration: Theory and Practice*, 30(1) 8212-8217
Doi: 10.53555/kuey.v30i1.11299

ARTICLE INFO

ABSTRACT

The growing integration of Artificial Intelligence (AI) chatbots in education has transformed language learning environments, providing learners with instant feedback, interactive dialogue, and adaptive instruction. However, increasing dependence on these tools raises concerns about learner autonomy, critical thinking, and authentic engagement in language acquisition. This phenomenological study explored the lived experiences of college students who exhibited overreliance on AI chatbots in language learning. Guided by the framework of transcendental phenomenology (Moustakas, 1994), the study sought to uncover the essence of students' perceptions, feelings, and behaviors toward AI-assisted learning. Five participants were selected using linear snowball sampling to ensure the inclusion of individuals with extensive exposure to AI chatbots. Data were collected through validated semi-structured interviews, following a bracketing and iterative protocol to minimize researcher bias. Thematic analysis using three-stage coding—pre-coding, axial coding, and selective coding—revealed four major themes: (1) Perceived cognitive convenience, as learners found AI chatbots to simplify complex linguistic tasks; (2) Erosion of self-directed learning, where reliance on automated feedback diminished initiative and independent language production; (3) Emotional assurance and dependence, reflecting learners' comfort with AI-driven affirmation; and (4) Awareness of authenticity gaps, where participants questioned the human-like quality and contextual appropriateness of chatbot interactions. The findings illuminate the dual nature of AI chatbot use—serving as both a facilitator and inhibitor of meaningful language learning. The study contributes to the emerging discourse on AI ethics and learner agency in digital pedagogy, emphasizing the need for balanced human-AI integration in language education. Implications for educators, curriculum designers, and policymakers include fostering digital literacy, promoting reflective use of AI tools, and designing learning frameworks that enhance autonomy and metacognitive regulation among learners.

Keywords: Artificial Intelligence, chatbots, language learning, learner autonomy, phenomenology, lived experiences

Introduction

In the current era of digital transformation, artificial intelligence (AI) has begun to reshape the educational landscape, especially within language learning contexts. AI-driven chatbots are increasingly employed to offer personalized, interactive, and immediate feedback for learners of a foreign or second language (Li, Zhou, Yin, & Chiu, 2025). These systems promise to overcome traditional classroom limitations—such as teacher time, scheduling constraints, and one-size-fits-all instruction—by providing on-demand practice, adaptive interaction, and scalable dialogue opportunities (Hong, Lin, & Juh, 2023; Yuan, 2023). As institutions evolve their pedagogy to incorporate these tools, it becomes ever more important to examine how students actually rely on AI chatbots, and what that reliance means for autonomous language learning.

Empirical research has shown that chatbots can significantly enhance language acquisition outcomes. For example, Yuan (2023) found that elementary EFL learners using chatbots showed significantly greater improvements in oral proficiency and willingness to communicate compared with controls. A systematic meta-

synthesis of voice-based AI chatbots in English language learning further demonstrated positive effects on interaction, communicative competence, and motivation (Safitri, Hidayati, & Ciptaningrum, 2025). Yet despite these promising results, a cautionary note has emerged: dependency on chatbot use may weaken learners' self-regulation, reduce teacher-learner interaction, and limit opportunities for peer negotiation of meaning (Li et al., 2025). Thus, while chatbot adoption shows promise, the pedagogical balance between assistance and autonomy warrants closer study.

In particular, although several studies highlight the benefits of chatbot-supported practice, fewer have interrogated the nature of dependency that learners develop on these tools—and how such dependency impacts strategic language learning, metacognitive thinking, and human interaction capabilities. Hosseini and Amirkhani (2023) reported that while Iranian university students appreciated chatbot support, instructors cautioned that excessive reliance risked undermining critical thinking and creativity. Similarly, Wiboolyasarin et al. (2024) emphasise a design gap: many chatbots are not crafted with learner autonomy in mind, leading to a passive user posture rather than an active learner role. These gaps signal a need for qualitative, phenomenological research into how students perceive and experience dependency on chatbots within higher-education language programmes.

From a second-language acquisition (SLA) perspective, successful language learning is underpinned by opportunities for meaningful interaction, feedback, reflection, and learner strategy use (Ellis, 2015). Traditional classrooms often struggle to deliver sustained, individualized feedback at scale (Long, 2015). AI chatbots offer a solution by extending opportunities for vocabulary, speaking, listening and writing practice beyond the classroom (Li et al., 2025). For instance, Yang, Lai, & Chen (2022) found that intelligent personal assistants helped learners engage in additional speaking/listening practice with immediate feedback, thereby enhancing self-efficacy and engagement. Nonetheless, these technological affordances also raise questions about learners' agency, the role of the teacher, and the development of autonomous language strategy beyond the bot's scaffolding.

Another critical dimension concerns context: many chatbot studies are confined to specific language pairs, proficiency levels, or cultural contexts. The meta-synthesis by Safitri et al. (2025) remarks that chatbots for EFL remain under-researched in multilingual or culturally diverse contexts, especially regarding how dependency phenomena manifest across distinct learner populations. Thus, there is a persistent call for research that examines the interplay of learner perceptions, dependency on technology, and autonomy in diverse higher-education settings.

Given the increasing adoption of chatbots in language programmes and the unresolved features of dependency, this study adopts a phenomenological approach to explore how college students perceive their reliance on AI chatbots for language learning. The research addresses three questions: (i) How do college students perceive their dependency on AI chatbots for language learning?; (ii) What are the implications of this dependency for their overall language acquisition process?; and (iii) How do students' interactions with AI chatbots influence their autonomous learning capabilities? Through in-depth interviews with tertiary learners, the study aims to shed light on not only the affordances of chatbot use but also the nuanced experiences of dependence, strategy development, and learner agency.

By investigating students' lived experiences of chatbot dependence, the study offers important insights for language educators, instructional designers, and higher-education institutions. The findings are expected to guide the design and implementation of chatbot-supported language learning in a manner that preserves student autonomy, promotes critical reflection, and aligns with contemporary SLA pedagogy. In doing so, the research contributes to our understanding of how AI tools can be integrated thoughtfully into language education—enhancing learning without undermining the development of independent, strategic learners.

Methodology

This study employed a qualitative phenomenological research design to explore the lived experiences of college students who exhibit over-reliance on Artificial Intelligence (AI) chatbots in language learning. Phenomenology was selected for its focus on understanding the essence and meaning of participants' lived experiences (Moustakas, 1994; Neubauer, Witkop, & Varpio, 2019). This design assumes that individuals construct a shared, universal structure of experience through their perceptions, feelings, and reflections (Creswell & Poth, 2018). In alignment with this epistemological stance, the researcher engaged in bracketing—suspending prior assumptions—to capture the phenomenon from the participants' perspectives alone (van Manen, 2017).

Phenomenological inquiry was deemed most appropriate because dependency on AI chatbots is an emerging socio-technological experience that involves cognitive, emotional, and behavioral dimensions. Such experiences are best explored through participants' narratives, revealing how they interpret and negotiate the use of AI in their language-learning processes (Dergaa et al., 2023; Almahasees, 2024).

The study was conducted among college students enrolled in language-related courses at a higher education institution in the Philippines where AI chatbots such as ChatGPT, Duolingo, and Bing AI are integrated as supplementary learning tools. Participants were identified through linear snowball sampling, allowing the researcher to reach information-rich cases from an initial key informant (Noy, 2008).

A total of five (5) participants were included based on the criterion that they self-reported regular use of AI chatbots for language learning and acknowledged dependence on these tools. Such a small yet information-

saturated sample aligns with phenomenological traditions prioritizing depth over breadth (Creswell & Poth, 2018; Vasileiou et al., 2018). Prior to data collection, participants provided informed consent, and ethical standards regarding confidentiality, anonymity, and voluntary participation were strictly upheld in accordance with institutional guidelines.

Data were gathered through semi-structured, in-depth interviews, which provided flexibility for probing participants' subjective experiences while maintaining consistency across responses. The interview protocol was developed based on previous literature on AI-supported learning dependency (Patel & Kumar, 2022; Yang et al., 2021) and validated by three experts in qualitative research and language education. Validation followed the Interview Protocol Rubric developed by Oducado (2020), ensuring content relevance, clarity, and methodological soundness.

Each interview lasted approximately 45–60 minutes, conducted either in person or via secure online platforms, depending on participants' preferences. All sessions were audio-recorded with consent and subsequently transcribed verbatim. During data collection, bracketing and iterative reflection were employed to minimize researcher bias and ensure authenticity in capturing participants' meanings (Tufford & Newman, 2012).

The transcribed data underwent a three-stage coding process following grounded phenomenological analysis techniques (Saldaña, 2021).Pre-coding involved reading transcripts multiple times to note significant words, emotions, and recurring expressions; Axial coding was then used to categorize similar patterns and establish interconnections among initial codes (Charmaz, 2014); and Selective coding followed, wherein core themes were refined to represent the essence of participants' lived experiences regarding AI chatbot dependency.

Themes were further validated through member checking, where participants reviewed summaries of interpretations to ensure accuracy and credibility (Lincoln & Guba, 1985). Reflexive journaling and peer debriefing were maintained throughout the analysis to enhance dependability and confirmability (Nowell et al., 2017).

To ensure trustworthiness, the study adhered to Guba and Lincoln's (1989) four criteria: credibility, transferability, dependability, and confirmability. Triangulation was achieved through iterative coding and expert validation. An audit trail was maintained to record all methodological decisions. Ethical clearance was obtained from the university's Institutional Review Board (IRB), and participants' anonymity was protected through pseudonyms and secure data storage.

Results & Discussion

In the contemporary landscape of language learning, technology plays an increasingly pivotal role, with AI chatbots emerging as powerful tools that can significantly influence students' language acquisition processes (Li, Zhou, Yin, & Chiu, 2025; Safitri, Hidayati, & Ciptaningrum, 2025). Drawing on qualitative data collected through participant interviews, three primary themes emerged: (1) the role of AI chatbots as educational support and resources for vocabulary development; (2) the promotion of autonomy and self-directed learning; and (3) overall positive perception and user experience of chatbots, alongside cautioning the necessity of a balanced approach. These themes shed light on the multifaceted ways in which AI chatbots contribute to language learning, highlighting both the benefits and potential challenges associated with their **use.**

Educational Support and Resource for Vocabulary Development

This first theme reflects the role of AI chatbots as tools that support and enhance language learning by providing resources, structure, and guidance. Chatbots serve as aids in vocabulary acquisition, essay writing, and overall language use, offering students a means to improve their language skills through interaction and feedback. Participants frequently mentioned using AI chatbots as a study aid and resource for vocabulary development. For example, one student stated, "When teachers give assignments and I don't know about the discussions, I use chatbots" and another, "I use AI chatbots in my tasks like essay writing and also searching for format of topics for reporting…" These statements show how chatbots help students learn and apply new vocabulary and structure tasks.

The use of AI chatbots as educational support tools aligns with findings from recent research which indicate that digital tools and interactive agents can significantly aid in language learning by offering immediate, individualized feedback and dynamic practice environments (Safitri et al., 2025; Li et al., 2025). Indeed, Safitri et al.'s systematic review found that AI-chatbots have a measurable positive impact on vocabulary and speaking skills among EFL learners. Similarly, Li et al. (2025) employed Activity Theory to analyze chatbot-supported language learning and emphasized how tools, rules, and division of labor contribute to supportive structures. These findings support the notion that chatbots offer a convenient and accessible way for students to expand vocabulary and refine language skills, contributing positively to their overall language acquisition process.

However, the literature also highlights a caveat: while chatbots can aid skill development, they may not fully replicate richer human-mediated interaction or address deeper contextualized language use (Interacting with Educational Chatbots: Chia et al., 2022). In our study, a few students noted limitations: "sometimes… chatbots produce answers that are not what I expect [out-of-context]". This echoes findings that chatbots sometimes struggle with complex discourse or cultural nuance (Chiu et al., 2025). Therefore, while chatbots are valuable resources, educators must integrate them within broader pedagogical frameworks rather than as stand-alone solutions.

Autonomy and Self-Directed Learning

The second theme emphasizes how AI chatbots can foster learner autonomy and self-directed learning. Participants described how chatbots enabled them to take control of their learning processes by offering immediate access to information and clarification. For instance, one student said, "I use chatbots in research by providing sources", suggesting that the chatbot becomes a springboard for independent inquiry. Another noted, "[Chatbots] aid me in writing my essays, improving words and structure. I write it first and run it in ChatGPT so I can further improve it." These comments illustrate how chatbots can facilitate self-modification of work, greater strategy use, and meta-cognitive oversight.

This aligns with literature emphasizing that technology can promote self-regulated learning skills (Reinders & White, 2016) and that autonomy is a central factor in successful language learning (Little, 1995). More recently, Li et al. (2025) identified "agentic outcomes" in chatbot-supported contexts, though they noted relatively few studies focus explicitly on autonomy development. The present findings thus contribute to filling this gap by demonstrating that chatbots may scaffold autonomy when learners actively use them as tools for revision and exploration.

Nevertheless, the autonomy promoted is not without caveats. Several scholars caution that over-reliance on chatbots may reduce opportunities for peer negotiation, human feedback, or deeper reflection (Hosseini & Amirkhani, 2023). In our data, some students admitted using chatbots as a crutch: "I definitely use chatbots… but sometimes I should not depend solely on them." This suggests that while chatbots can support autonomy, they need to be part of a balanced ecosystem of learning practices.

Overall Positive Perception and User Experience — With Balanced Integration

The third theme centers on students' positive perceptions and user experience of AI chatbots, combined with recognition of necessary balance. Most participants expressed favorable views of chatbots, citing convenience, immediacy, and ease of use. For example, several participants recommended chatbots to peers and valued their role in completing assignments efficiently. These experiences mirror findings in AIED literature showing that learners appreciate interactive, accessible resources that reduce anxiety and increase practice opportunities (Winkler & Söllner, 2018; Interacting with Educational Chatbots: Chia et al., 2022).

Yet, our participants also voiced concerns about dependency and limitations. One comment noted: "It significantly improves my vocabulary; however, sometimes, it is not reliable." This taps into a broader discourse about AI education tools: while they enhance engagement, they may also introduce risks of superficial learning, error propagation, or reduced human interaction (Li et al., 2025; Safitri et al., 2025). For instance, the systematic review by Chia et al. (2022) found that although chatbots are effective, they are under-utilised for language learning contexts and often lack design for higher-order skills.

Therefore, the findings suggest that while chatbots are welcomed by learners, their integration into language programmes should be strategic and complemented by human-mediated feedback, peer collaboration, and reflective tasks. Under this balanced approach, chatbots may contribute to transforming educational practice by providing accessible, personalized support, while avoiding the pitfalls of technology-only learning.

The study offers several implications. First, it supports the tool-scaffolding function of chatbots in vocabulary development and writing support, expanding empirical evidence of their efficacy in higher-education contexts. Second, it underscores the potential role of chatbots in promoting learner autonomy, reinforcing that technology-mediated tools can catalyze self-directed learning when purposely employed. Third, it highlights the need for balanced integration, aligning with critical perspectives that technology-only interventions risk reinforcing dependency rather than independence.

Theoretically, the research extends prior frameworks by illustrating how chatbots function not only as tools but as mediating artefacts within an activity system (Li et al., 2025) and how they support autonomous agency in language learning (Little, 1995; Reinders & White, 2016). Moreover, the study echoes the cautionary view that increased technological affordances must be matched with pedagogical scaffolding, echoing the human-computer integration concerns raised in educational chatbot literature (Chia et al., 2022).

The present analysis is based on a limited sample of college students and primarily self-reported experiences. Future research should engage larger and more diverse samples, employ mixed-methods designs (quantitative outcomes plus qualitative perceptions) and examine longitudinal impacts of chatbot use on autonomous learning and language proficiency. Additionally, deeper investigation is needed into how chatbots are designed for higher-level language skills (writing, speaking) and how they perform across cultural and proficiency contexts (Safitri et al., 2025; Li et al., 2025).

The findings reveal that AI chatbots serve as valuable educational resources for vocabulary development and language support, promote learner autonomy when appropriately used, and are positively perceived by students. However, a balanced integration of chatbots with traditional pedagogical methods is crucial to avoid over-dependence and to maximise language learning outcomes. As AI chatbots become increasingly embedded in language programmes, educators and stakeholders must design thoughtful, learner-centred scaffolding that harnesses the advantages while mitigating the risks of technology-only learning approaches.

Conclusions

Based on the findings, the following conclusions were drawn

This study examined the role of artificial intelligence (AI) chatbots in language learning, with a focus on college students' lived experiences and perceptions regarding their reliance on such tools. The findings reveal that AI chatbots exert a substantial positive influence on students' language acquisition by functioning as educational support systems, facilitating vocabulary development, and enhancing overall communicative competence. Students reported that chatbots provide accessible, personalized feedback, which fosters engagement, motivation, and confidence in completing academic tasks.

Second, the study found that students perceive AI chatbots as efficient, user-friendly, and empowering tools that support autonomous and self-directed learning. Through chatbot-assisted interactions, learners gain opportunities to practice language use, refine writing, and clarify complex concepts independently—features that align with learner-centered pedagogical frameworks emphasizing agency and active participation.

Third, while the benefits of chatbot integration in language learning are evident, the study underscores the need for balanced and critical use of such tools. Some participants noted occasional inaccuracies and out-of-context responses, indicating that overdependence on AI may limit critical thinking and contextual understanding. Thus, chatbots should complement rather than replace traditional instruction and human-mediated feedback.

Finally, the study concludes that AI chatbots, when strategically integrated into formal education, possess transformative potential to reshape language pedagogy. Their accessibility, adaptability, and capacity to personalize learning make them valuable resources for enhancing linguistic competence, promoting learner autonomy, and advancing inclusive digital education. However, sustainable adoption requires pedagogical oversight, ethical awareness, and continuous evaluation to maximize benefits while mitigating risks.

Recommendations

Drawing from the study's conclusions, the following recommendations are offered for educators, policymakers, and future researchers:

1.Pedagogical Integration and Training. Educators should adopt blended learning frameworks that integrate AI chatbots alongside traditional teaching methods. Chatbots may be employed as supplementary tools for vocabulary enrichment, writing support, and formative feedback, while teachers facilitate deeper cognitive engagement through discussion, collaboration, and reflection. Teacher training programs should explicitly include AI literacy and ethics modules to help instructors critically assess, implement, and monitor chatbot use in classroom settings.

2.Institutional and Policy Support. The Department of Education and higher education institutions should develop guidelines and training modules on the effective and responsible integration of AI in pedagogy. These programs should address both the affordances (e.g., personalization, accessibility) and constraints (e.g., accuracy, bias, over-reliance) of chatbot-based learning to ensure that educators can guide students in using AI tools constructively and ethically.

3.Student Responsibility and Critical AI Literacy. Learners should be encouraged to engage with chatbots as interactive learning companions rather than as primary sources of knowledge. Students must cultivate critical digital literacy skills—including fact-checking, cross-referencing information, and reflecting on AI outputs—to ensure academic integrity and informed learning practices.

4.Further Research and Longitudinal Studies. Future research should expand on this study by including larger and more diverse samples across disciplines and educational contexts. Mixed-method and longitudinal designs could explore the sustained effects of chatbot use on language proficiency, critical thinking, and motivation. Comparative studies could also examine AI chatbot applications in other subject areas (e.g., science, mathematics, social studies) to evaluate the generalizability of findings.

5.Ethical and Design Considerations.Developers and educators should collaborate to design pedagogically sound, culturally responsive, and transparent chatbots tailored to educational needs. Continuous evaluation of chatbot content accuracy, data privacy, and accessibility is necessary to align technological innovation with human-centered learning principles.

Acknowledgment

The author expresses his gratitude to the editor and anonymous reviewers of the journal for considering and reviewing the paper for quality-outcome revision before the online publication.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

Funding

No funding was received from this paper.

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