

OVER RELIANCE ON TECH TOOLS HINDER THE COMMUNICATIVE COMPETENCE OF COLLEGE STUDENTS

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Abstract

With the rapid progress in the field of academics new digital and technological tools are also in use. Learners, especially students of college level are relying heavily on these mediums not only to gain knowledge but also to enhance their communication skills. The increasing reliance on technology driven communication tools such as automated prompts, predictive text and AI chatbots has developed serious concerns about the erosion of human communicative competence. This research examines how over-reliance or dependence on pre-shaped responses and AI generated responses decrease students or learners' ability to engage in spontaneous intricate refined and contextually suitable communication. Through a mixed method approach which included surveys, interviews and experimental assessments the researchers analyzed the social and cognitive outcomes of reduced active language processing. The finding of this research suggests that protract and lengthen use of auto generated prompt-based tools corresponded with decreased verbal fluency, reduced empathy in dialogues or interactions and decreasing rapid capacity for critical thinking in real time discourse. This article concludes with recommendations for balancing technological assistance with steady communication skills to improve the ability to use in practical usage.

Keywords

Communicative competence, technological tools, pre shaped responses, auto mated responses, AI integration.

Introduction

In the age of digital communication from smart replies to AI generated responses we have well organized and modernized interactions. But all these prompt-based replies introduced unintended consequences as well. No doubt these tools and technological assistance enhance learning efficiency but their existence and pervading use risks chip away the fundamental human communication competencies such as active listening, adaptive expression and empathetic involvement. This research investigates the social and cognitive impacts of over reliance on pre-shaped prompts, grammar checkers, automated translators, paraphrasing software, and generative language models, arguing that overindulgent dependence may decline spontaneous language production and critical discourse skills. Drawing on the theories of communicative competence (Hymes, 1972) and Cognitive Load (Sweller, 1988) we inspect how automation affects language processing pathways. Preliminary observations highlight decline in originality and situational awareness among frequent users of AI tools. This article calls for a reevaluation of technology

design and to educate and guide instructors and learners to make a balanced approach for essential communication skills in an increasingly automated world. So we can say that relying on new technology is good but over reliance may hinder the cognitive abilities of learners. So students must take a balanced approach so they can embed the new technology with critical thinking.

Literature Review

Researches on technology-assisted language learning indicate that AI tools such as chatbots, generative text assistants, and predictive text have been widely used by most of the students due to their capacity to provide immediate feedback and personalized practice opportunities (Zhai, Wibowo, & Li, 2024). Scholarly studies show that these tools can enhance aspects of language learning, including writing proficiency, vocabulary acquisition, and speaking competence. (Springer et al., 2024). However, some researchers also reveal serious concerns regarding the cognitive and communicative side-effects of over-reliance on automated systems. Research cautions against passive utilization of AI-generated output, that may replace rather than support learning processes. (Li & Hegelheimer, 2023). Although, in educational settings these technologies can streamline tasks and reduce effort, they may also foster dependency that may undermine students' critical thinking and independent problem-solving abilities (Winarti, H., Kholid, M. R., & Zakiyah, Z., 2025). Over-reliance on AI responses often results in users' accepting outputs without questioning or verification, thereby diminishing deep cognitive processes and analytical skills—capabilities that are integral to human communicative competence. (Avsheniuk, N., Seminikhyna, N., Ruban, L., & Sviatiuk, Y., 2025).

Research conducted with L2 learners highlights a similar situation in language learning environments, where students excessively incorporate AI-generated language into their work. While AI assistance ensures grammatical accuracy and supports textual organization, concerns have been raised that habitual use of pre-structured prompts reduces students' engagement in generative language production and spontaneous discourse construction (International Journal of Multidiscipline, 2025). Studies specifically exploring use of AI among college students indicate that while AI-generated content may improvise surface-level writing outcomes, students are unable to critically evaluate or meaningfully modify these outputs. It means there is a disconnection between technological assistance and the cognitive skills required for independent communication (Woo et al., 2025). There exists the serious risk of moulding pragmatic expressions into a uniformity, a danger that educators, researchers, and linguists must carefully be aware of. The reliance on AI for content generation might also lead to decline in cognitive capacities such as critical analysis, reasoning and originality. AI's assistance, though beneficial, might also weaken the rigorous engagement necessary for profound comprehension. (Creely, E., 2024). Analyses of AI-dependent language learning environments show that though AI tools such as chatbots can reduce anxiety and provide ready to use content, they may not adequately develop complex sociolinguistic competencies i.e, adaptive interaction, pragmatic awareness, and empathetic responsiveness (Nature Communications, 2025). In short automated tools ensure efficiency and predictability but the rich variability of human discourse contexts is compromised by their excessive use. This weakens learners' capacity to infer meaning from interlocutors' cues, and manage communicative complexities—skills central to Hymes' doctrine of communicative competence (Hymes, 1972; Sweller, 1988; Payne, 2025).

Over-reliance on AI also raises pedagogical concerns related to academic integrity and assessment. Difficulty in discriminating between students' performance and mechanically

generated content is reported by educators. Integration of human content and AI tools generated content and responses complicate the measurement of learners' true communicative ability.(Springer et al., 2023). Furthermore, the biases embedded in generative models and the probability for misinformation, reinforce the necessity of promoting analytical ability alongside technological proficiency (Zhai, Wibowo, & Li, 2024). Overall, the literature suggests that while AI tools offer notable potential for learning L2 , unguarded and excessive dependence on these technologies can hinder the development of spontaneous discourse production, critical discourse skills, and independent communicative competence, punctuating the need for balanced pedagogical frameworks that integrate technology without superseding active language processing. (Kåhlman, R.,2025).

Research Objectives:

The primary objectives of this study are:

1. To examine the effect of technology-based communication tools on students' communicative competence, spontaneous language production and verbal fluency.
2. To propose pedagogical strategies useful for maintaining balance in use of technology with the development of authentic communicative competence

Research Questions:

1. How does over-reliance on tech tools affect students' communicative competence ,critical thinking and real-time discourse skills?
2. What pedagogical measures are best to be adopted to mitigate the negative effects of over-reliance on technology while retaining its instructional benefits?

Methodology

Research Design

This study adopts a mixed-methods research design, combining quantitative and qualitative approaches to examine the effects of over-reliance on AI tools on the communicative competence of college students. It allows for both measurable analysis of students' communication performance and exploration of their experiences, perceptions, and interactional behaviors, ensuring triangulation and contextual validity.

Sampling

The study was conducted in selected colleges of Sahiwal . The participants consisted of college students (Grades 11–12). A purposive sampling technique was employed to examine participants' use of technology-based communication tools such as predictive text, chatbots, and automated prompts.

A total of 120 students participated in the study, and 8 English language teachers were also included to provide instructional perspectives.

Data Collection Procedure

The data was collected in a period of eight weeks in public-sector colleges located in Sahiwal district, Punjab, Pakistan. Prior to data collection, permission was obtained from college administrations, and participants were informed about the purpose of the study. Ethical considerations ; voluntary participation, confidentiality, and anonymity, were ensured.

Questionnaire:

A structured questionnaire was designed to collect quantitative data. Responses were measured using a five-point Likert scale, ranging from strongly disagree to strongly agree. The questionnaire was pilot-tested to ensure clarity and reliability.

Language Performance Tasks:

To examine communicative competence, students were made to participate in controlled and unassisted speaking tasks, including oral presentations, role-play interactions, spontaneous response and opinion-based discussions. Performance was assessed using an adapted communicative competence rubric based on Canale and Swain's model, focusing on fluency, accuracy, coherence, lexical diversity, pragmatic appropriateness, and self-correction.

Semi-Structured Interviews:

Semi-structured interviews and classroom discourse observation were conducted with selected students and teachers, to get qualitative insights to examine real time language use during technology -assisted and non- assisted activities.

Data Analysis

Quantitative data were analyzed using statistics, while qualitative data were analyzed thematically following coding and categorization procedures.

Results

Quantitative Measures

Table 1

Comparison of Linguistic and Communicative Competence in relation to Level of AI dependency (N = 120)

Language Skills	High Reliance	AI	Moderate Reliance	AI
Accuracy	4.26		3.92	
Confidence	2.61		3.87	
Fluency	2.74		3.71	
Pragmatic Appropriateness	2.58		3.63	
Self Error Correction	2.49		4.05	

Note. Scale: 1 = very low, 5 = very high.

Qualitative Findings

Data collected in Interview indicate that students with high AI reliance show low confidence without AI assistance. They avoid spontaneous oral communication and focus on learning English primarily as an examination requirement. Whereas students with moderate reliance, demonstrated greater independence and communicative confidence.

Discussion

The findings reveal that while AI tools prove helpful in learning vocabulary, enhancing grammatical accuracy, creating content with minimum effort, unregulated use of AI tools negatively affects deeper linguistic and communicative competence, and may weaken cognitive processes essential for acquiring linguistic proficiency. In the Sahiwal context, where exposure of English language is limited, excessive use of AI tools may suppress communicative interaction, reducing opportunities for negotiation of meaning and pragmatic development.

Conclusion

This study concludes that over-reliance on AI tools presents serious concerns for the development of linguistic and communicative competence among college students in Sahiwal, Pakistan. Although AI tools provide valuable academic support, their unregulated use may result in linguistically accurate but communicatively underprepared learners. Balanced integration of AI in language pedagogy is recommendable for language development in Pakistani colleges.

Recommendations:

AI tools should be used as a scaffolding, not a major resource. Students should be provided assistance to have a reflection on AI-generated output. Academic rules and policies should regulate the use of AI. Training programs should be arranged to inculcate AI literacy and its ethical use.

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