

ChatGPT Overreliance and the Erosion of L2 Writing Agency Among ESL Undergraduates in Gujarat

Vijay Makwana¹

ABSTRACT

The use of AI tools, especially ChatGPT, has become common in academic writing classrooms, often outpacing teachers and policy updates. This study examined how 180 undergraduate ESL students in Gujarat, India, use ChatGPT for writing and how this affects their sense of control over their work. The research employed a sequential explanatory mixed-methods approach, beginning with a validated 28-item survey followed by semi-structured interviews with 30 participants. Findings showed that 63.4% of students use ChatGPT several times a week or more, with over 60% depending on it for higher-order tasks such as building arguments and generating ideas. Thematic analysis of interviews revealed five main themes: prompt dependency, voice erosion, reduced revision, metacognitive withdrawal, and exam anxiety. These results indicate that ChatGPT is frequently used as a replacement rather than a support tool. The study introduces the SCAFFOLD model, an eight-stage framework for responsible AI integration in ESL writing classrooms.

Keywords: ChatGPT; Cognitive offloading; L2 writing; ESL; Generative AI overreliance

INTRODUCTION

A second-year humanities student from a university in Gujarat began the semester by using ChatGPT to improve a weak introduction. Within a month, she was asking it to write whole paragraphs. By the third month, she no longer edited the output. “I just keep changing the prompt until it gives me something I can submit,” she said. Her experience was common among the thirty students interviewed for this study.

Writing in a second language is hard work, and that challenge is pedagogically important. When learners plan arguments, choose words, and revise sentences, they develop not only language skills but also critical thinking (Flower & Hayes, 1981; Manchón, 2011). When an AI tool handles these processes, both the effort and much of the learning are lost.

This study focuses on the critical shift from AI as support to AI as substitution. Risko and Gilbert (2016, p. 676) define cognitive offloading as “the use of physical action to alter the information processing requirements of a task to reduce cognitive demand.” While limited offloading can be beneficial, complete offloading, where AI generates ideas, vocabulary, arguments, and

drafts, removes the student from the learning process. Recent studies (Gerlich, 2025; Fan et al., 2025) link frequent AI use with reduced critical thinking and “metacognitive laziness.”

Research on Indian ESL contexts remains limited. While Mahapatra (2024) reported positive effects when ChatGPT was used in a structured feedback manner, overreliance was not examined. This study addresses that gap among ESL undergraduates in six districts of Gujarat, western India. Three research questions guided the inquiry:

1. How often do these students use ChatGPT, and for which tasks?
2. How does this use affect their sense of writing agency in a second language?
3. What patterns of cognitive delegation appear in their accounts of writing?

THEORETICAL FRAMEWORK

Cognitive Offloading and L2 Writing Development

Risko and Gilbert (2016) distinguish between offloading that supports difficult task elements and offloading that replaces the task entirely. In education, this distinction is crucial. Sweller et al.’s (1998) Cognitive Load Theory highlights the importance of preserving germane cognitive load,

¹ Assistant Professor, Charotar Institute of Languages, Arts and Social Studies, Changa (Anand), Gujarat, India.

the effort that builds knowledge and skill. When ChatGPT assumes planning, drafting, and revising, this load is removed.

Writing Agency and Authorial Identity

Writing agency refers to a writer’s ability to make intentional choices about language, structure, and style (Ivanič, 2004; Prior, 2006). In L2 contexts, agency is often constrained by limited linguistic resources (Kormos, 2023). While ChatGPT may appear to expand options, the resulting choices originate from the tool rather than the learner, leading to diminished authorship (Xiao et al., 2025; Hsu, 2025).

METHODOLOGY

Research Design

This study employed a sequential explanatory mixed-methods design. Survey data identified

broad patterns of use, which were then explored and explained through follow-up interviews.

Participants and Sampling

A total of 180 undergraduate ESL students from English-medium programmes at three universities and four autonomous colleges in Gujarat participated in the survey. Participants represented six districts and varied proficiency levels (A2–B2 on the CEFR scale).

Table 1 provides the full participant profile. For the interview phase, 30 participants were purposefully selected using *maximum variation sampling* to ensure representation across disciplines, frequency of ChatGPT use (low, medium, high), gender, proficiency levels, and geographic locations.

Table 1. Participant Profile by Discipline, Gender, CEFR Range, and Primary Location (N = 180)

Discipline	n	% Female	CEFR Range	Primary Location(s)
Humanities	52	58	A2–B2	Ahmedabad, Anand
Social Sciences	48	54	B1–B2	Surat, Vadodara
Engineering / IT	50	36	A2–B1	Anand, Kheda
Commerce / Mgmt.	30	47	B1–B2	Rajkot, Surat
Total	180	49	A2–B2	Six districts, Gujarat

Instrument Design and Validation

The 28-item survey was divided into four sections (see Table 2). Four academic experts reviewed the instrument, and a pilot test was conducted with 22 students. The writing agency sub-scale showed Cronbach’s $\alpha=0.83$ and the metacognitive awareness sub-scale $\alpha=0.79$. Interviews were conducted one-on-one in English (with

clarification in Gujarati or Hindi when needed), lasted 35–50 minutes, were audio-recorded with consent, and transcribed verbatim. Trustworthiness was enhanced through member checking with eight participants, peer debriefing with two external researchers, and calculation of inter-coder agreement (initial agreement = 84%, resolved through discussion).

Table 2. Qualitative Themes: Patterns of Cognitive Delegation

Theme	Representative Quote	Freq.	Disciplines
Prompt dependency	“I don’t draft anymore—I just keep changing the prompt...”	25/30	All four
Voice erosion	“My teacher said my essay doesn’t sound like me...”	20/30	Humanities, Soc. Sci.
Reduced revision	“Why should I edit? ChatGPT already made it correct.”	22/30	Engineering, Commerce
Metacognitive withdrawal	“I stopped checking if my argument is logical...”	18/30	All four
Exam-context anxiety	“In the exam hall, without it, I feel completely blank.”	27/30	All four

DATA ANALYSIS

Survey data were analysed using descriptive statistics and cross-tabulations in SPSS 27. Interview transcripts were analysed using Braun

and Clarke’s (2006) six-step thematic analysis with codes developed inductively.

RESULTS

■ **Frequency and Geographic Distribution of ChatGPT Use:** 63.4% of students used ChatGPT

for academic writing several times a week or more, and 26.7% used it daily. Engineering/IT students reported the highest daily use.

■ **Writing Tasks Delegated to ChatGPT:** Grammar and syntax correction was the most delegated task (88.0%), followed by idea generation (81.0%) and paraphrasing (79.0%). Higher-order tasks such as drafting paragraphs (74.5%), structuring arguments (67.0%), and developing thesis statements (63.5%) were also heavily delegated.

■ **Perceptions of Writing Agency:** Students reported low confidence in independent writing. The mean score for “I feel confident writing without ChatGPT” was 2.28 (SD = 0.97), with 70.6% disagreeing or strongly disagreeing. A clear negative relationship emerged between frequency of ChatGPT use and writing confidence.

DISCUSSION

The findings consistently demonstrate that ESL undergraduates in Gujarat are using ChatGPT primarily as a substitute rather than a scaffold. High frequency of use, extensive task delegation, declining independent writing confidence, and the five qualitative themes all support this conclusion.

This pattern runs counter to Vygotsky’s (1978) Zone of Proximal Development and the scaffolding principle (Wood et al., 1976). Instead of gradually withdrawing support as competence grows, reliance on ChatGPT increased while independent capability decreased.

Implementation Challenges of the SCAFFOLD Model

While the SCAFFOLD model offers a promising framework, its implementation in large Indian higher education classrooms may face challenges such as limited class time, varying teacher digital literacy, high student-teacher ratios, and differing institutional policies on AI use. These can be addressed through targeted faculty development workshops, integration into existing writing curricula, and low-stakes process-oriented assessment tools. Future classroom-based studies should evaluate its feasibility across diverse institutional contexts.

Students who used ChatGPT sparingly and strategically reported higher confidence and ownership, consistent with Hong et al. (2025) and Su et al. (2023). The boundary between productive

use and overreliance is therefore both real and teachable.

The SCAFFOLD Model

Based on cognitive offloading theory, self-regulated learning, and process-writing approaches, this study proposes the SCAFFOLD model: Specify (topic and purpose), Curate (sources), Argue (main claims), Formulate (outline), Feedback (language only), Own (final draft), Log (process), and Disengage (gradually reduce AI). The first four stages are student-led; AI is used only for surface-level language feedback in stage five. AI involvement decreases as learner competence increases.

Pedagogical Implications

- Be explicit about the line between support and substitution.
- Assess the process, not just the product (e.g., portfolios and timed writing).
- Build structured AI literacy into writing courses.

CONCLUSION

This study provides systematic evidence that, among ESL undergraduates in Gujarat, ChatGPT use has largely shifted from scaffolding to substitution. The proposed SCAFFOLD model offers a structured pathway to restore learner agency while harnessing AI’s benefits. Future research should empirically test this model, explore adaptations across other Indian states and ESL contexts, and examine effective teacher professional development approaches.

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