



USING CHATGPT TO ENHANCE EFL LEARNERS' VOCABULARY: AN EXPERIENTIAL PERSPECTIVE IN AI- SUPPORTED LANGUAGE DEVELOPMENT

Necla Arlic

Zayed University, UAE

The International Conference "Innovation in Language Learning – 18th Edition"
6 November, 2025



Research Objective & Question

Objective:

- To investigate the impact of ChatGPT on EFL vocabulary learning in an experiential action research study.

Research Question:

- What are learners' attitudes toward using ChatGPT for vocabulary learning?

Background

Learners and Context

Setting: Bilingual tertiary institution where English serves as the medium of academic instruction.

Course: Critical Analysis and Composition, a compulsory English composition course focused on academic writing and key undergraduate written genres.

Delivery Mode: Face-to-face instruction in sections of approximately 30 students from all university faculties.

Learners: Undergraduate students, primarily local Emirati males and females aged 17 and above.

Background: Students range from recent secondary school graduates to mature learners currently in the

Current Educational Challenges in the Age of Artificial Intelligence

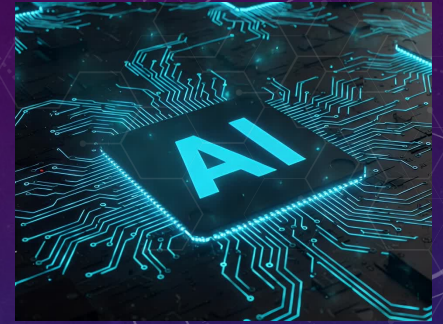
Plagiarism

Reduced creative thinking



Literature Review

Theoretical Reviews



01

Krashen's Input Hypothesis

- Krashen (1985): Comprehensible input $\rightarrow i+1$
- Vocabulary grows in meaningful contexts
- ChatGPT provides context-based language
- Introduces new words via explanations & examples
- Supports interactive engagement and vocabulary growth

02

Incidental Vocabulary Learning Theory

- Vocabulary is learned through meaningful engagement, not memorization (Hulstijn, 2001).
- Learners pick up words while focusing on communication—such as reading, listening, or speaking
- ChatGPT provides authentic, context-rich conversations where they encounter unfamiliar vocabulary incidentally
- Repeated exposure $\rightarrow$ gradual, unconscious vocabulary growth
- ChatGPT fosters natural language interaction for lexical development

ChatGPT in enhancing vocabulary acquisition Losi et al. (2024)

- **ChatGPT can enhance vocabulary acquisition across contexts**
- **Students value simplicity, convenience, and effectiveness**
- **ChatGPT supports independent learning and problem-solving skills**
- **Concerns: inaccuracies and potential overreliance**
- **Clear guidelines needed for responsible use**

AI in ESL Vocabulary Learning (Alharbi & Khalil, 2023)

- **Students view AI as personalized, authentic, real-life-like learning activities more effectively than traditional materials-based learning methods**
- **AI seen as more effective than traditional materials**
- **Teachers' perceptions vary: younger = optimistic, older = cautious**
- **Concerns: student dependence, reduced peer interaction**

ChatGPT in Vietnamese Classrooms (Nguyen & Cao, 2023)

- ChatGPT enhances student engagement and learning outcomes**
- Provides personalized feedback and teacher support**
- Improves content management and accessibility for remote learners**
- Challenges: content privacy, quality control, accuracy**

Key Insights on ChatGPT & Vocabulary Learning & Learners' Perceptions

- **AI tools provide personalized formative feedback, enhancing vocabulary retention and understanding.**
- **Promote autonomous learning through practice and real-time interactive support.**
- **Challenges include student dependence, occasional errors, and need for guidance.**
- **Cannot fully replace traditional methods, especially for complex writing tasks.**
- **Best used as complementary tools, integrating AI with conventional language education.**

Methodology Overview

- Experiential action research exploring ChatGPT's impact on vocabulary learning
- Included experiential observations and formative feedback to support learning
- Data collected through a questionnaire and analyzed quantitatively and qualitatively

Learners

- First-semester public university students in the UAE
- Convenience sample: total of 30 students, 15 males, 15 females
- Age range: 17 years and above
- All students had prior technology experience, enabling confident ChatGPT use

Data Collection

Students participated in ChatGPT-supported activities throughout their 10-week first-semester Critical Analysis and Composition course.

- Feedback on their draft

Personalized Feedback Loop

Objective: Reinforce vocabulary learning through self-correction.

Activity Example:

- First draft:** Students wrote a paragraph (150 words minimum) about the negative effects of online shopping.

- Students pasted their text into ChatGPT and asked:
“Highlight the words that can be replaced with stronger synonyms and explain why.”
- They recorded new vocabulary examples in their reflection logs/vocabulary journals.
- They refined their draft by integrating ChatGPT’s vocabulary suggestions.
- Reviewed first and final drafts; provided formative feedback for improvement.

Assessment: Informal comparison between initial and revised versions and observations.

Learner Activity: Chat-Based Vocabulary Conversation for Writing

Task Instructions:

Ask ChatGPT to act as a **classmate** and **discuss an environmental topic**. Students are instructed to use new or challenging vocabulary in the conversation.

Example Prompt:

“Dear ChatGPT, act as one of my classmates. Let’s discuss the topic of environmental protection. Respond to my ideas and ask me questions, and I will reply using new vocabulary words I am learning.”

Sample Interaction:

Student: “I think sustainability is essential because it ensures resources last for future generations. What do you think?”

ChatGPT: “I agree! Pollution is also a serious problem. How do you think recycling can help reduce it?”

Student: “Recycling reduces waste and can lower the carbon footprint of communities. For example, schools could implement programs to recycle paper and plastics.”

ChatGPT: “That’s a good point. Deforestation is another issue. How can communities prevent it?”

Student: Responds using **new vocabulary words** in context.

Follow-Up Writing Task:

After the chat, students write a **short paragraph or mini-essay** summarizing the conversation, incorporating the vocabulary naturally.

They record **new words and phrases** in reflection logs or vocabulary journals for further review.

Assessment:

Focus on **application of vocabulary in context**, conversational fluency, and reflective recording.

Learner Activity: Drafting, ChatGPT Intervention, and Revised Draft

Pre-test: Handwritten paragraph under controlled conditions.

Intervention: Using ChatGPT to refine vocabulary.

Post-test: The improved version after ChatGPT assistance.

The pre-test and post-test tasks are **the same writing prompt**, and that the only difference is the use of ChatGPT in the post-test phase.

Contextual Writing Task (Application Phase)

Objective: Apply vocabulary in extended writing.

Activity Example:

- Students write a 120-word paragraph by hand in class (pre-test).
- After feedback from ChatGPT, they revise digitally (post-test).
- **ChatGPT prompts:** "Please suggest more advanced vocabulary and natural expressions for my paragraph, without changing my ideas."
- They refined their draft by integrating ChatGPT's vocabulary suggestions.
- Reviewed first and final drafts; provided formative feedback for improvement.
- They recorded new vocabulary examples in their reflection logs/vocabulary journals.

Assessment: Lexical richness

Follow-Up Questionnaire

- Confidential questionnaire designed to examine students' attitudes toward ChatGPT
- Included 20 Likert-scale items and 4 open-ended questions
- Developed by researcher to elicit detailed, reflective learner responses
- Bilingual (English–Arabic) version ensured linguistic accuracy and conceptual clarity

QUANTITATIVE ANALYSIS

Student Reactions to Vocabulary Learning with ChatGPT

- Explored students' reactions using a follow-up brief questionnaire
- Questionnaire included 20 Likert-scale items and 4 open-ended questions
- Items grouped under four themes: Vocabulary, Motivation, Autonomy, Challenges
- Provided insights into learning experiences, confidence, and support needs

A. Vocabulary Learning and Use	1	ChatGPT helped me learn new English vocabulary more effectively.
	2	I was able to understand the meanings and usage of new words through ChatGPT explanations.
	3	ChatGPT helped me use new vocabulary in meaningful sentences or contexts.
	4	The feedback I received from ChatGPT helped me correct my word choice and improve accuracy.
	5	I can now remember and use more vocabulary than before the ChatGPT activities.
B. Motivation and Confidence	6	Using ChatGPT made vocabulary learning more interesting and enjoyable.
	7	I felt motivated to explore and learn more words when using ChatGPT.
	8	ChatGPT helped me feel more confident using English vocabulary in my writing and speaking.
	9	I felt comfortable interacting with ChatGPT because it provided judgment-free feedback.
	10	I would like to continue using ChatGPT for future English vocabulary practice.
C. Learning Autonomy and Support	11	ChatGPT allowed me to practice vocabulary independently, without always needing a teacher.
	12	ChatGPT provided immediate and personalized feedback that supported my learning.
	13	ChatGPT helped me identify and correct my mistakes in vocabulary use.
	14	I felt that ChatGPT was a supportive and patient learning partner.
	15	Overall, ChatGPT improved my vocabulary learning experience compared to traditional methods.
D. Challenges and Concerns	16	I sometimes relied too much on ChatGPT instead of thinking for myself.
	17	I found it difficult to understand some explanations provided by ChatGPT.
	18	ChatGPT sometimes used vocabulary that was too advanced for my level.
	19	I was unsure whether all the vocabulary explanations from ChatGPT were completely accurate.
	20	Using ChatGPT for vocabulary learning requires strong self-discipline and focus.

Theme	All Avg	Male Avg	Female Avg	Higher Average Group	p-value
A: Vocabulary Learning and Use	4.65	4.44	4.87	Female	0.01
B: Motivation and Confidence	4.55	4.53	4.56	Female	0.88
C: Learning Autonomy and Support	4.56	4.29	4.83	Female	0.00
D: Challenges and Concerns	3.32	3.2	3.44	Female	0.42

Question No.	Question	All Avg	Male Avg	Female Avg	Higher Average Group	p-value
1	ChatGPT helped me learn new English vocabulary more effectively.	4.7	4.5	4.9	Female	0.01
3	ChatGPT helped me use new vocabulary in meaningful sentences or contexts.	4.6	4.3	4.9	Female	0.03
12	ChatGPT provided immediate and personalized feedback that supported my learning.	4.6	4.3	4.9	Female	0.01
13	ChatGPT helped me identify and correct my mistakes in vocabulary use.	4.5	4.2	4.9	Female	0.00
14	I felt that ChatGPT was a supportive and patient learning partner.	4.6	4.2	4.9	Female	0.00

Themes & Findings

In addition, an **exploratory thematic analysis** was conducted on the qualitative data obtained from the open-ended questions in the questionnaire. The results indicated that students generally held favorable attitudes toward the use of AI in vocabulary learning.

Category 1: Vocabulary Development → (“learned new words,” “improved word choice,” “expanded expressions”)

Category 2: Motivation → (“excited to learn,” “felt encouraged,” “wanted to practice more”)

Category 3: Autonomy & Confidence → (“independent learning,” “less fear of mistakes”)

Category 4: Challenges / Concerns → (“overreliance on AI,” “difficulty understanding AI explanations”)

Interpretation and Pedagogical Implications

- ChatGPT enhances vocabulary learning and learner motivation when pedagogically guided
- Supports blended learning integrating AI tools with teacher-led instruction
- Promotes autonomy, competence, and relatedness
- Encourages educators to use AI as scaffolded learning partners
- Fosters interaction, reflection, and learner empowerment in language education

Conclusion

- **Enhanced Vocabulary Learning**

ChatGPT creates personalized and interactive learning spaces that support vocabulary growth and overall language performance.

- **Facilitates Incidental Learning**

Through real-time dialogue and immediate feedback, ChatGPT provides contextually appropriate vocabulary within learners' productive range.

- **Accessible Input**

The language input offered by ChatGPT is often more flexible and accessible than traditional materials.

Research Gaps and Future Directions

- **Lack of longitudinal studies on vocabulary retention with AI-assisted learning.**
- **Need to explore higher-order language skills, such as critical thinking, in AI-based contexts.**
- **Future research should expand sample sizes and intervention durations to enhance generalizability and guide effective AI integration in language learning.**



Thank you!



necla.arlic@zu.ac.ae