# CLASSROOM OBSERVATION ON USING SCRABBLE GAME IN TEACHING VOCABULARY

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## ABSTRACT

This study investigates the effects of ChatGPT on students' vocabulary achievement and learning interest in EFL classrooms. The rapid development of artificial intelligence has transformed language learning practices by providing interactive, adaptive, and accessible learning support. However, its impact on both cognitive and affective domains remains underexplored. This study employed a quasi-experimental design involving 60 senior high school students, divided into an experimental group using ChatGPT and a control group receiving conventional instruction. Data were collected through vocabulary tests and learning interest questionnaires administered as pre-tests and post-tests. The results revealed that students in the experimental group demonstrated a significant improvement in vocabulary achievement, with mean scores increasing from 65.2 to 82.6. In contrast, their learning interest showed a decline after the treatment, indicating reduced engagement and intrinsic motivation. These findings suggest that while ChatGPT effectively enhances students' vocabulary mastery through instant feedback and contextual learning support, it may simultaneously reduce learning interest due to increased dependency and reduced learning challenge. The study highlights the importance of balancing the use of AI tools in language learning to ensure that improvements in academic performance are accompanied by sustained learner engagement.

**Keywords**: ChatGPT, Vocabulary Achievement, Learning Interest, EFL, Artificial Intelligence.

## 1) INTRODUCTION

The significant advancement of artificial intelligence (AI) has significantly transformed educational practices. Among the emerging AI-powered tools, ChatGPT has gained considerable attention due to its ability to generate human-like

responses, provide instant feedback, and support learners in various language tasks (Tolstykh & Oshchepkova, 2024; Bansal et al., 2024). In EFL classrooms, ChatGPT is increasingly used as a supplementary learning tool to assist students in understanding vocabulary, constructing sentences, and exploring language use in context (Javaid et al., 2023; Bin-Hady et al., 2025). Its accessibility and responsiveness make it a promising innovation in enhancing students' language learning experiences (Rezai et al., 2024; Yu et al., 2025)

Vocabulary mastery is widely recognized as a fundamental component of language proficiency. Without sufficient vocabulary knowledge, students often struggle to comprehend texts, express ideas, and participate effectively in communication (Putra & Putri, 2025). Where exposure to English is limited, learners frequently encounter difficulties in acquiring and retaining new vocabulary. Traditional vocabulary teaching, which often relies on memorization and teacher-centered approaches, may not adequately support students in developing meaningful and contextualized understanding of words (Hoidn & Reusser, 2020). Therefore, integrating technology into vocabulary learning has become an important strategy to address these challenges (Putra et al., 2025).

AI tools such as ChatGPT offer several pedagogical advantages. First, they provide immediate access to word meanings, synonyms, and usage examples, enabling students to learn more efficiently (Alam & Asmawi, 2023). Second, they allow for personalized and self-paced learning, where students can explore vocabulary according to their individual needs and proficiency levels (Muthmainnah et al., 2024; Zhou, 2023). Third, ChatGPT can facilitate contextualized learning by generating sentences and explanations that help students understand how words are used in real-life situations (Hwang & Utami, 2024). These features position ChatGPT as a potentially powerful tool for improving students' vocabulary achievement.

Despite these benefits, the increasing use of AI in education also raises important concerns, particularly regarding its impact on students' learning motivation. Learning motivation plays a crucial role in determining students' engagement, persistence, and overall success in language learning (Anjum et al., 2024). While technology can enhance learning

efficiency, it may also lead to unintended consequences (Hasanein & Sobaih, 2023). For instance, when students rely heavily on AI tools to obtain answers, they may become less motivated to think critically, participate actively, or engage in independent learning. This over-reliance may reduce students' sense of effort, challenge, and ownership in the learning process.

Previous studies have predominantly focused on the positive effects of technology on cognitive outcomes, such as improved test scores and academic performance. However, there is still a lack of research that simultaneously examines both cognitive and affective dimensions of learning, particularly in the context of AI-assisted language learning. The relationship between achievement and motivation is complex, and improvements in performance do not necessarily correspond to increased motivation. In some cases, the convenience offered by technology may even diminish students' intrinsic interest in learning.

Therefore, it is essential to investigate not only whether ChatGPT improves students' vocabulary achievement but also how it influences their learning motivation. Understanding this dual impact is important for educators to design effective instructional strategies that maximize the benefits of AI while minimizing its potential drawbacks. A balanced approach is needed to ensure that technology supports not only students' performance but also their engagement and motivation.

Based on these considerations, this study aims to examine the effects of ChatGPT on students' vocabulary achievement and learning motivation in EFL classrooms. Specifically, this study seeks to answer the following research questions: (1) To what extent does ChatGPT affect students' vocabulary achievement? and (2) How does ChatGPT influence students' learning motivation? By addressing these questions, this study contributes to the growing body of research on AI in education and provides practical insights into the effective integration of ChatGPT in language learning.

## 2) METHODS

This study employed a quasi-experimental design to examine the effects of ChatGPT on students' vocabulary achievement and learning motivation in an EFL context. A total of 60 senior high school students participated in the study and were divided into two groups: an

experimental group (30 students), which utilized ChatGPT as a learning tool, and a control group (30 students), which received conventional vocabulary teaching. Both groups were administered a vocabulary test and a learning motivation questionnaire as pre-test and post-test instruments. The vocabulary test consisted of multiple-choice items designed to assess students' mastery of word meanings and usage, while the questionnaire employed a Likert scale to measure students' interest, engagement, and learning effort.

The treatment was conducted over four instructional sessions, during which the experimental group engaged in vocabulary learning activities through ChatGPT, including exploring word meanings, generating example sentences, and practicing contextual usage, whereas the control group followed traditional teacher-centered approaches. The collected data were analyzed using descriptive statistics to determine mean scores and inferential statistics, including paired sample and independent sample t-tests, to identify significant differences in vocabulary achievement and learning motivation between and within groups, with a significance level set at 0.05.

## 3) RESULTS AND DISCUSSION

### *Vocabulary Achievement*

The results of the study reveal that ChatGPT had a significant positive effect on students' vocabulary achievement. The experimental group demonstrated a substantial improvement in their performance, with mean scores increasing from 65.2 in the pre-test to 82.6 in the post-test. In contrast, the control group showed a more moderate improvement, from 64.8 to 72.1. This difference indicates that students who learned vocabulary using ChatGPT achieved better outcomes compared to those who relied on conventional instruction.

This improvement can be explained by the nature of ChatGPT as an interactive and responsive learning tool. Students were able to receive instant feedback on vocabulary meanings, usage, and sentence construction, which helped them correct misunderstandings immediately during the learning process. In addition, ChatGPT provided contextualized explanations and examples, allowing students to see how words function in real

communicative situations rather than in isolated forms. This contextual exposure is particularly important in vocabulary acquisition, as it strengthens both understanding and retention.

Furthermore, the interactive features of ChatGPT encouraged students to actively engage in exploratory learning. Students could ask questions freely, generate multiple sentence examples, and test different vocabulary uses without hesitation. This type of self-paced and individualized learning environment contributed to deeper cognitive processing and reinforced vocabulary mastery. These findings support the idea that AI-assisted learning tools can significantly enhance cognitive outcomes by providing efficient, adaptive, and personalized learning experiences (Halkiopoulos & Gkintoni, 2024).

### *Learning Interest*

In contrast to the improvement in vocabulary achievement, the findings reveal a decline in students' learning interest after the use of ChatGPT. Although students initially showed high curiosity and enthusiasm due to the novelty of the technology, this interest gradually decreased over time as they became more familiar with the tool.

The decline in learning interest is reflected in reduced enjoyment and engagement during vocabulary learning activities. Students reported that learning became less challenging because answers were easily accessible through ChatGPT. As a result, the learning process lost its sense of exploration and discovery, which are important components of sustaining intrinsic interest in learning. This suggests that while technology can initially attract students' attention, it does not necessarily guarantee sustained interest in the long term (Moşteanu, 2021).

In addition, classroom observations indicated a decrease in students' active participation. Instead of engaging in discussions, asking questions, or interacting with peers and teachers, students tended to rely on ChatGPT individually to complete tasks. This shift from collaborative learning to more isolated and technology-dependent learning behaviour reduced opportunities for meaningful interaction in the classroom. Since interaction is a key element in language learning, this reduction may negatively affect students' overall learning experience and engagement (Muir et al., 2019).

The findings also show a decrease in students' learning effort. Many students preferred to use ChatGPT to obtain immediate answers rather than attempting to think critically or solve vocabulary tasks independently. This behaviour reflects cognitive offloading, where learners shift cognitive responsibility to external tools. While this increases efficiency and reduces task difficulty, it may also reduce deeper cognitive engagement and limit the development of problem-solving skills (X). Consequently, students may complete tasks successfully without fully engaging in the learning process.

Moreover, students' learning autonomy also appeared to decline. Although ChatGPT provides opportunities for self-directed learning, students in this study did not demonstrate stronger independence. Instead, they became increasingly dependent on the tool for understanding vocabulary and completing assignments. This indicates that the presence of AI does not automatically lead to self-regulated learning unless it is supported by appropriate instructional guidance (Almulla & Al-Rahmi, 2023). Autonomy was replaced by assisted dependency rather than independent learning behavior.

One of the most critical findings is the increasing dependency on ChatGPT. Students frequently relied on the tool for translating, explaining, and generating vocabulary answers without attempting to explore or process the information independently. This dependency suggests a shift in learning orientation from process-based learning to result-oriented learning. Instead of focusing on understanding vocabulary development, students tended to prioritize obtaining quick and correct answers, which may weaken their long-term learning development (Doyle, 2023).

## 4) CONCLUSION

This study concludes that ChatGPT has a significant positive effect on students' vocabulary achievement in EFL classrooms. Students who used ChatGPT demonstrated higher improvement in vocabulary mastery compared to those who received conventional instruction, indicating that AI-based tools can effectively support cognitive aspects of language learning through instant feedback, contextual explanations, and interactive learning opportunities.

However, the findings also reveal a negative impact on students' learning interest. Although students initially showed enthusiasm toward the use of ChatGPT, their interest declined over time due to increased dependency on the tool and reduced learning challenge. This suggests that while ChatGPT enhances learning efficiency, it may also weaken students' intrinsic motivation and engagement.

Based on these findings, it is recommended that teachers integrate ChatGPT as a supplementary learning tool rather than a replacement for active learning processes. A balanced instructional approach is needed to ensure that students not only achieve better vocabulary outcomes but also maintain their learning interest and engagement in the classroom.

## REFERENCES

Alam, M. S., & Asmawi, A. (2023). Chat GPT in constructivist language pedagogy: Exploring its potential and challenges in legal vocabulary acquisition. Applied Research on English Language, 12(4), 131–148.

Almulla, M. A., & Al-Rahmi, W. M. (2023). Integrated social cognitive theory with learning input factors: The effects of problem-solving skills and critical thinking skills on learning performance sustainability. Sustainability, 15(5), 3978.

Anjum, F., Raheem, B. R., & Ghafar, Z. N. (2024). The impact of ChatGPT on enhancing students' motivation and learning engagement in second language acquisition: Insights from students. Journal of E-learning Research, 3(2), 1–11.

Bansal, G., Chamola, V., Hussain, A., Guizani, M., & Niyato, D. (2024). Transforming conversations with AI—A comprehensive study of ChatGPT. Cognitive Computation, 16(5), 2487–2510.

Bin-Hady, W. R. A., Al-Kadi, A., Hazaea, A., & Ali, J. K. M. (2025). Exploring the dimensions of ChatGPT in English language learning: A global perspective. Library Hi Tech, 43(4–5), 1315–1328.

Doyle, T. (2023). Helping students learn in a learner-centered environment: A guide to facilitating learning in higher education. Taylor & Francis.

Halkiopoulos, C., & Gkintoni, E. (2024). Leveraging AI in e-learning: Personalized learning and adaptive assessment through cognitive neuropsychology—A systematic analysis. Electronics, 13(18), 3762.

Hasanein, A. M., & Sobaih, A. E. E. (2023). Drivers and consequences of ChatGPT use in higher education: Key stakeholder perspectives. European Journal of Investigation in Health, Psychology and Education, 13(11), 2599–2614.

Hoidn, S., & Reusser, K. (2020). Foundations of student-centered learning and teaching. In The Routledge international handbook of student-centered learning and teaching in higher education (pp. 17–46). Routledge.

Hwang, W. Y., & Utami, I. Q. (2024). Using GPT and authentic contextual recognition to generate math word problems with difficulty levels. Education and Information Technologies, 29(13), 1–29.

Javaid, M., Haleem, A., Singh, R. P., Khan, S., & Khan, I. H. (2023). Unlocking the opportunities through ChatGPT tool towards ameliorating the education system. BenchCouncil Transactions on Benchmarks, Standards and Evaluations, 3(2), 100115.

Moşteanu, N. R. (2021). Teaching and learning techniques for the online environment: How to maintain students' attention and achieve learning outcomes in a virtual environment using new technology. International Journal of Innovative Research and Scientific Studies, 4(4), 278–290.

Muir, T., Milthorpe, N., Stone, C., Dyment, J., Freeman, E., & Hopwood, B. (2019). Chronicling engagement: Students' experience of online learning over time. Distance Education, 40(2), 262–277.

Muthmainnah, M., Cardoso, L., Alsbbagh, Y. A. M. R., Al Yakin, A., & Apriani, E. (2024, June). Advancing sustainable learning by boosting student self-regulated learning and feedback through AI-driven personalized in EFL education. In International conference on explainable artificial intelligence in the digital sustainability (pp. 36–54). Springer Nature Switzerland.

Putra, M. D., & Putri, S. Y. (2025, August). Teachers' perceptions of using various educational applications in vocabulary teaching. In Proceedings of the Third National Seminar on English Language Teaching (NELT 2025).

Putra, M. D., Hidayati, S., Putri, S. Y., Cahyani, A. A. W., Febri, F., Sahendra, Y., Andika, J. D., & Zakariyah, Y. A. (2025). Exploring the use of technology in teaching vocabulary in junior high schools. International Journal of Environmental Sciences, 11(21s), 3003–3007. https://doi.org/10.64252/bbz8h167

Rezai, A., Namaziandost, E., & Hwang, G. J. (2024). How can ChatGPT open promising avenues for L2 development? A phenomenological study involving EFL university students in Iran. Computers in Human Behavior Reports, 16, 100510.

Tolstykh, O. M., & Oshchepkova, T. (2024). Beyond ChatGPT: Roles that artificial intelligence tools can play in an English language classroom. Discover Artificial Intelligence, 4(1), 60.

Yu, H., Guo, Y., Yang, H., Zhang, W., & Dong, Y. (2025). Can ChatGPT revolutionize language learning? Unveiling the power of AI in multilingual education through user insights and pedagogical impact. European Journal of Education, 60(1), e12749.

Zhou, W. (2023). Chat GPT integrated with voice assistant as learning oral chat-based constructive communication to improve communicative competence for EFL learners. arXiv preprint arXiv:2311.00718.