

AI as a Translation Scaffold: Effects of ChatGPT-Assisted Inquiry and Task-Based Learning on EFL Students' Performance and Motivation

Abstract

This study examines the integration of ChatGPT into inquiry-based and task-based translation instruction in an EFL context. It investigates its impact on students' translation performance and learning motivation, as well as their perceptions of AI-assisted learning, highlighting both pedagogical affordances and potential challenges in AI-supported language education. The emergence of generative artificial intelligence (AI) has introduced significant changes to language education. Tools such as ChatGPT provide learners with immediate access to linguistic input, feedback, and alternative expressions, potentially transforming how language skills are developed. In EFL contexts, where exposure to authentic language input may be limited, such tools appear particularly promising. Despite this potential, concerns have been raised regarding the pedagogical implications of AI use. Some scholars argue that AI may enhance learner autonomy and engagement, while others caution that excessive reliance on AI tools may undermine deep cognitive processing. These concerns are especially relevant in translation learning, which requires not only linguistic accuracy but also interpretive judgment and contextual sensitivity. In response to these tensions, this study examines how ChatGPT can be integrated into translation instruction as a structured learning support, rather than an answer-generating tool. By situating AI within an inquiry-based and task-based learning framework, the study investigates its pedagogical effectiveness through four key questions: whether ChatGPT-assisted instruction improves students' translation performance, what specific functions of ChatGPT contribute to translation learning, how this approach compares with traditional instruction in terms of learning outcomes, and whether it enhances students' learning motivation. A quasi-experimental design was employed in this study. Participants were EFL

university students enrolled in a translation course. Two cohorts were included: a control group receiving traditional instruction and an experimental group receiving ChatGPT-assisted instruction. The instructional design for the experimental group followed a three-step process: initial human translation, AI-assisted feedback, and revision. This design aimed to ensure that students engaged cognitively with the translation task before consulting AI support. Data collection included translation pre-tests and post-tests, evaluated by three independent raters to ensure reliability. In addition, a structured questionnaire using a five-point Likert scale was administered to assess students' learning motivation and perceptions. Open-ended responses were also collected to provide qualitative insights. Quantitative data were analyzed using paired-sample t-tests and independent-sample t-tests. Effect sizes were calculated to assess practical significance. Qualitative data were analyzed thematically. The results indicate that students in the experimental group showed a slight improvement in translation scores from pre-test to post-test; however, the difference was not statistically significant. Similarly, the control group did not show meaningful improvement. Between-group comparisons also did not reach statistical significance; however, the observed effect size suggests a small to moderate practical advantage for ChatGPT-assisted instruction. These findings imply that while short-term measurable gains in translation performance may be limited, the use of ChatGPT may still offer pedagogically meaningful benefits. In contrast, findings from the questionnaire revealed a significant positive impact on learning motivation. Students reported increased engagement, higher interest, and stronger willingness to utilize AI tools for learning. ChatGPT was perceived as particularly beneficial in providing translation suggestions, supporting error correction, and facilitating the development of translation strategies. The findings of this study highlight a distinction between learning outcomes and learning processes. While translation performance did not improve significantly in the short term, students demonstrated clear changes in how they approached learning. From a sociocultural perspective, ChatGPT appears to function as a mediational tool that supports learners within their Zone of Proximal Development (ZPD). By

providing suggestions and feedback, it enables learners to refine their work and develop greater awareness of translation strategies. At the same time, the findings reveal a dual effect. While AI enhances engagement and motivation, it also raises concerns about accuracy and dependence. These results underscore the importance of instructional design in guiding students' use of AI tools. This study suggests that ChatGPT can serve as an effective cognitive scaffold in translation learning. Although its impact on short-term performance is limited, it contributes to increased motivation, engagement, and strategic awareness. Future research should explore long-term effects and examine how AI can be integrated into language instruction in ways that balance support and learner independence.

Keywords: ChatGPT, AI-assisted learning, scaffolding, translation pedagogy, EFL