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Teacher backgrounds as interpretive lenses: A collaborative study of AI integration in EFL

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Two instructors at the same Japanese university compared two parallel implementations of ChatGPT-assisted draft revision within identical course structures. The results showed how teacher backgrounds, beliefs, and experience function in shaping pedagogical realities and teacher attitudes toward generative artificial intelligence (GenAI) integration in English as a Foreign Language (EFL) classrooms. The study proposes that professional dialogue between instructors with different beliefs and experiences may be productive for effective AI implementation.

Keywords: AI integration, teacher beliefs, ChatGPT, teacher backgrounds

Introduction

Many English teachers, especially in higher education institutions, now face pressure to integrate AI due to its rapid proliferation and universities' changing policies toward the active integration of AI technologies into foreign language classes (Fujieda, 2025; Kohnke et al., 2024). As many researchers point out, the integration of technology into English education depends heavily on teacher backgrounds and beliefs, such as the effectiveness of technology or its usability (Zimotti et al., 2024). Nopis and Hashim (2024), in their systematic review, discovered that teacher beliefs toward technology were a strong predictor of its successful use in the classroom. Neff et al. (2024) found a similar tendency: differences in technology integration depended on individuals' prior backgrounds. On the other hand, many recent studies show the effectiveness of generative artificial intelligence (GenAI) tools, such as

ChatGPT, in English education. For instance, Wang (2025) argues that introducing ChatGPT-4 into English communication classes led to a significant gain in communication ability and boosted students' motivation.

While most studies focus on implementation methods or effectiveness, teachers do not simply implement technology; they also interpret it through personal and professional lenses, shaped by their linguistic, educational, and technological backgrounds.

The purpose of this study is to address this gap by revealing how two teachers with different linguistic, educational, and technological backgrounds interpret similar AI integration experiences in university English as a Foreign Language (EFL) classrooms.

Methodology

This collaborative research was designed to examine how two teachers with different backgrounds interpret similar ChatGPT integration experiences in university EFL classes. The study focused on understanding what each teacher noticed, how they made sense of student behaviors, and how they evaluated the intervention's success.

Participants

Teacher A is a technology enthusiast and a daily AI user (e.g., Claude, ChatGPT, Grammarly, Canva). She holds master's degrees in Linguistics, English Education, and Teaching English to Speakers of Other Languages (TESOL), and has 15 years of teaching experience in Japan in diverse environments. Both English and Japanese are second languages for Teacher A. She emphasizes that integrating GenAI technologies is her professional responsibility to stay current with emerging tools and to prepare students for their future careers. Her underlying assumption is that AI can boost students' motivation and reduce their anxiety, thus helping students acquire foreign languages more effectively. These initial orientations, along with her research curiosity, prompted her to invite a contrasting colleague to join this study. Teacher B, who uses the ChatGPT free version only occasionally, holds a master's degree in Applied Linguistics and has 36 years of teaching experience in Japan. Teacher B's L1 is English, and she is a cautious adopter of GenAI technologies. She believes that language classrooms should prioritize human interaction and that students may only use GenAI tools to get the "answers" and not engage in critical thinking nor use the tool to improve their English learning skills. She is concerned that use of GenAI technologies in class would lead her students to become passive recipients rather than active participants in their learning.

A total of 103 first-year students participated in this study. Teacher A taught 52 and Teacher B taught 51 students. All students belonged to the Faculties of Engineering or Information Engineering and were assigned to a required English course focusing on developing listening and speaking skills. Students' English proficiency level is estimated at approximately A1 to A2 according to the Common European Framework of Reference for Languages (CEFR).



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Collaborative lesson planning and implementation

Over five 90-minute lessons, students created poster presentations on Japanese sightseeing recommendations. The process included creating initial drafts (no use of GenAI or machine translation was allowed), ChatGPT draft revision, and a final presentation.

Data collection

During this implementation, weekly discussions between the teachers were conducted to determine how GenAI would be used by students during classes. Both teachers had to compromise on implementation details due to differences in GenAI-related beliefs, aiming to ensure a similar implementation to isolate the effect of teacher backgrounds. For instance, while Teacher A saw L1 use (Japanese) for designated prompts as a helpful scaffolding, Teacher B was concerned that using Japanese might limit students' use of English. The compromised decision was to give students the initial prompts in Japanese and allow them to switch between English and Japanese during their interaction with ChatGPT. Collected data included recorded discussion sessions, students' pre- and post-course surveys, students' drafts (before and after ChatGPT use), and ChatGPT conversation logs.

Results

Classroom implementation: Contrasting experiences

Teacher A's experience showed that the implementation confirmed what she expected. For instance, she was fascinated to see the different strategies students applied and their engagement with AI during the revision process. Data collected from students' pre- and post-course surveys, students' drafts (before and after ChatGPT use), and ChatGPT conversation logs indicated that AI appeared to reduce anxiety, and the use of Japanese was estimated as a positive scaffolding strategy. Variations in students' approaches toward AI use for revising were explained as individual differences, not problems.

Teacher B's experience was not as positive. Although she assumed that the use of AI for draft revision would be less demanding than giving individual verbal feedback, from observation and interaction with the students when using GenAI in class she found that many students lacked basic computer literacy skills. The classes involved a lot of troubleshooting despite the students receiving explicit instructions orally and projected on a screen. In addition, although students were given explicit prompts in Japanese to input into ChatGPT, in ChatGPT logs many were observed to simply copy and paste their drafts into ChatGPT with no prompts and then use the output as the completed draft with no further interaction.

Students' AI experience and perceptions

According to the pre-course students' survey, approximately 90% of participants had prior AI experience, and more than 80% of these students reported they were already

using ChatGPT. Teacher A saw it as an advantage as students were already comfortable with AI, and that is why the implementation went smoothly. However, students needed guidance on using GenAI for language learning specifically. Teacher B also assumed that students' familiarity with AI and ChatGPT would facilitate classroom implementation, however, the students' lack of basic computer literacy and their inability to follow instructions hindered the implementation of ChatGPT for language learning.

In the surveys, students also reported that AI feedback is less embarrassing than teacher or peer feedback, which both authors interpreted as a positive effect to reduce anxiety during the revision process.

Teachers' post-implementation interpretations

Despite several weeks of collaborative planning and nearly identical implementation, teachers' perceptions revealed contrasting interpretations.

Teacher A expressed positive views based on the high quality of presentations, a visible increase in student confidence, and reduced anxiety (from students' comments in the surveys). She also pointed out the advantage of AI use for feedback because it allows for providing immediate personalized feedback. Teacher A's familiarity with AI gave her an unfair advantage, but at the same time allowed her to focus on pedagogical implications. Students' use of Japanese was also viewed as non-problematic, reflecting both Teacher A's multilingual use of AI tools and her belief that L1 plays an important role in the L2 acquisition process. However, through collaboration with Teacher B, Teacher A gained more critical reflection on aspects she might have overlooked, such as environmental impact, cognitive load, and technology stress (both students' and teachers'). In the future, Teacher A is eager to refine prompts based on students' interaction data and plans to explore more advanced AI features.

Teacher B observed no discernible improvement in the quality of student presentations due to GenAI use in comparison with other classes in the same course where GenAI was not used. The use of AI technology by students did not demonstrate their motivation to improve language learning skills but reinforced Teacher B's prior belief that most students would use AI as a shortcut solution to a problem. Finally, although this study was conducted over five classes, students used ChatGPT in only one class. Teacher B believes that this was too limited for the students to gain new skills in using AI technology for language learning and for herself to gain a greater understanding of how AI technologies can be used to facilitate learning in her classrooms.

Discussion

This study shows that teacher backgrounds and beliefs affected not only initial attitudes but also shaped teachers' interpretations. Each teacher noticed different aspects of the same phenomenon and the same student behaviors were assigned different significance (see Table 1).

Table 1. Interpretive gaps

Student behavior	Teacher A interpretation	Teacher B interpretation
Approximately 50% had only 1 ChatGPT interaction	Efficiency, limited experience	Passivity, wanting the “answer”
Heavy Japanese use	Legitimate scaffolding	Limited use of English
High presentation quality	Effective AI support	Unrelated to AI support
Teacher stress level	Manageable	Manageable

Table 1 highlights the interpretive gaps in how the same events were interpreted differently depending on the teachers’ backgrounds when observing the use of Japanese, the quality of the presentations, and number of student interactions with ChatGPT. As with the previous research, the differences can be explained in terms of confirmation bias, as the data reinforced each teacher’s predispositions toward AI: enthusiastic or cautious.

Conclusion

This study reveals that two teachers who implemented nearly identical AI-integrated lessons reported very different pedagogical realities. This demonstrates that the teacher themselves matters as much as the teaching materials or tools. We regard the question of what we can learn from teachers with different perspectives to be a crucial issue that warrants more focused research in the future.

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