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Does VR Benefit Speaking Proficiency? An Experimental Study

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Background

Speaking competence refers to the ability to produce fluent, accurate, and appropriate spoken language, utilizing various knowledge, skills, and strategies (Goh & Burns, 2012). Speaking can be developed if L2 learners have opportunities to interact with others and are pushed to produce the target language (Long, 1996; Swain, 2005). Involving L2 learners in such cases helps activate their attention and mental linguistic resources, which gradually promotes the automaticity of the language production process (Long, 1996; Swain, 2005). However, the flow of spoken production can be hindered by constraints, including linguistic variables (Goh & Burns, 2012) or unwillingness to communicate (MacIntyre et al., 1998).

Previous studies have discussed the essentiality of willingness to communicate (WTC) as a prerequisite for speaking development and interaction (MacIntyre et al., 1998; Kang, 2005; Peng, 2022). WTC is “readiness to enter into discourse at a particular time with a specific person or persons, using L2” (MacIntyre et al., 1998, p. 547). However, WTC is affected by several contextual factors (Kang, 2005; Peng, 2022). Kang (2005) suggested that providing a safe environment that obtains security (i.e., lack of fear or punishment), excitement (i.e., entails feelings of joy to talk), and responsibility (i.e., a sense of duty to understand or deliver the message) can likely increase the WTC in the classroom.

Recent studies have demonstrated that virtual reality (VR) can enhance speaking proficiency and promote a sense of security due to the absence of negative evaluation and judgment, as well as anonymity (Ebadi & Ebadijalal, 2022; Chen, 2021; Dhimolea et al., 2022). Furthermore, learners become more engaged in VR due to the immersive language use experience (Ebadi &

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Ebadijalal, 2022; Dhimolea et al., 2022). However, Dhimolea et al. (2022) found contradictory findings among 32 studies regarding language gain, including speaking.

The inconclusive findings may be attributed to research variables, including the study's duration, experimental design, and type of VR. Additionally, little is known about the instructional approaches used in previous studies, which may have affected the studies' conclusions. According to Chen et al. (2021), integrating VR with an appropriate instructional approach is a significant step that should be considered to evaluate the effectiveness of VR. Although the research agenda emphasizes integrating Task-based language teaching (TBLT) with VR due to their affordances (i.e., authenticity and interactivity) (Chong & Reinders, 2020), further research is needed to examine the impact of integrating technology with TBLT on language development and WTC. To fill this gap, this study aims to investigate the following questions:

1. To what extent does VR-mediated TBLT promote the speaking proficiency of Arabic language learners when compared with face-to-face TBLT?
2. To what extent does VR-mediated TBLT promote the situated L2 WTC of Arabic language learners when compared with face-to-face TBLT?
3. What contextual factors appear to impact the learners' situated L2 WTC in each context?

Methodology

A quasi experimental study using a mixed-methods approach was conducted, involving two intact classes ($n_1 = 13$ and $n_2 = 14$) assigned randomly. The participants were female students from diverse countries. They were studying Arabic as a second language at a tertiary level. Their ages ranged from 18 to 35 years. No one had used VR before this study.

Both groups (VR and non-VR) were taught by the same instructor and performed the same task (reasoning or opinion gap tasks), in 2-hour sessions each week. Fifteen tasks were designed based on TBLT criteria (Ellis, 2003) and aligned with the course syllabus (i.e., topics, levels and language knowledge). The study implemented high-immersive (i.e., using head-mounted devices) and multi-user VR that allows synchronous interaction. The VR group was trained (over 8 hours, distributed across different days) on how to use the technology after the pre-test and before starting the intervention. The study lasted five months, including the testing period.

The participants performed the OPI test (i.e., Oral Proficiency Interview, a reliable, valid, and proficiency-based standard test developed by ACTFL) before and after the intervention, with two proficient examiners (see Table 1).

Table 1. Descriptive results of the three tests for each group

	Pretest			Posttest		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
VR group	3.92	.954	13	6.31	1.182	13
Non-VR group	4.07	1.072	14	6.21	1.424	14

The Mann-Whitney test was used, since the assumption of normality was rejected, to compare the means of speaking proficiency.

All the sessions were recorded and analyzed using an observation scheme adopted from Al-Murtadha (2019) and Coa (2014). After transcribing the recordings, the WTC indicators (i.e., voluntarily answering, asking, declaring, or responding to an opinion, and explaining) for each participant were identified and then calculated to determine the sum of WTC indicators in each group when performing the same task. The word quantity produced by each participant was also considered in this stage. The means of WTC and word quantity were compared using the Mann-Whitney test.

Journals were also collected immediately after each session to measure WTC. The journals (336 journals) were analyzed to identify the high and low WTC moments reported by the participants, along with the associated factors. The factors were classified into three categories: task variables, VR variables, and other variables (i.e., those not related to the task design or technology features).

Results and Discussion

The findings showed that the VR group improved their speaking, but no statistically significant difference ($U = 80.500$, $z = -.526$, $p = .599$) with a very small effect size ($r = 0.01$). This finding aligns with Nicolaidou et al. (2023), who demonstrated a similarity between their study groups (VR vs. non-VR groups) in terms of vocabulary improvement. On the other hand, this finding contrasts with Ebadi and Ebadijalal (2022), who found that the VR group outperformed the control group in their oral skills.

The inconsistent findings may be attributed to two key reasons. First, while this study employed a holistic test that provides an overall assessment of speaking proficiency, Ebadi and Ebadijalal (2022) used an analytical test that assigns a score to the spoken language components, encompassing fluency, vocabulary, pronunciation, and grammar. The improvement of these components can be observed in a short period, compared to developing speaking as a whole, which

requires a longer time. Different types of tests draw different conclusions (Luoma, 2004).

The second key point is the novelty of the instructional approach experienced by the non-VR group in this study. TBLT was not a regular approach used in their classes before conducting the study, as the participants in the non-VR group reported, which possibly affected their outcome. In contrast, the non-VR group in Ebadi and Ebadijalal's (2022) study typically gave presentations about different locations, a common practice in language classrooms.

The findings also showed no statistically significant difference between the groups regarding WTC indicators and word quantity. This is demonstrated by the results for WTC indicators ($U = 65.50$, $z = -1.239$, $p = .215$, $r = .05$) and word quantity ($U = 66.50$, $z = -1.189$, $p = .234$, $r = .05$), with a small effect size. The finding suggests that the situated WTC of both groups were similar. It is worth noting that this study lost some data (only 11 sessions were included, lasting approximately 15 minutes each), which might have uncovered different findings, due to technical errors and participant absences. This is considered a limitation in the study.

Although the quantitative findings suggest that VR may not offer benefits to language development and WTC compared to the classroom, the qualitative analysis revealed some positive results. First, the findings show that VR enhanced security conditions, as learners used avatars that hid their real personalities, also increased their feeling of social presence. This is supported by Chen (2021), who found that masked identities, represented as avatars, heightened learners' confidence. Second, integrating TBLT, as an instructional approach, with VR kept learners' engagement, which enhanced the second physiological condition (i.e. excitement) (Kang, 2005).

However, the qualitative results show that the fluctuation of WTC was more dynamic, especially at the beginning of the intervention, in the VR group than in the non-VR group, due to physical (i.e., headache and eye strain) and technical issues. This finding suggests that the non-significant results may have been affected by the novel features of VR, which could negatively impact the learners' outcomes. Despite the participants being trained, it seems that reaching normalization requires a considerable amount of time. Consequently, it is vital to move VR toward normalization, allowing for reliable examination of the potential benefits of the technology (Bax, 2011). Additionally, the small scale of the study (i.e., small sample size and short duration) might hinder the discovery of potential positive results related to speaking development. Therefore, further research is necessary in a large-scale setting.

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How to Handle Socially Acute Questions in the Language Classroom

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Introduction and Background

In contemporary, culturally diverse classrooms, language teachers increasingly face Socially Acute Questions (SAQs)—complex, controversial issues such as racism, discrimination, and social justice. However, many educators feel ill-equipped to manage these topics due to insufficient training and support. Teachers often report conflict and frustration when trying to navigate such discussions. This often leads to eschewing them all together, despite educational authorities seeking to institutionalize DEI frameworks (Diversity, Equity, and Inclusion).

To address this growing challenge, I propose a customizable, actionable toolbox. It is intended to help educators foster constructive intercultural dialogue while meeting the academic and emotional needs of learners and teachers alike. Although the case study below focuses on racism within a tertiary-level English language course, the tools presented are designed for broader application across levels, languages, academic subjects, and various forms of bias.

Literature Review: Theoretical Foundations

The toolbox is informed by a broad range of theoretical and pedagogical frameworks, each offering strategies for managing SAQs in education.

1. Socially Acute Questions (SAQs)

According to Legardez (2017), SAQs require a performative teaching style where teachers become agents of “educ-action”—not merely educators, but facilitators of social transformation.

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2. **Transdisciplinarity**

Herweg et al. (2021) advocate decompartmentalizing disciplines and including non-academic perspectives through activities such as field trips and guest lectures. These transdisciplinary strategies help bring real-world relevance into the classroom and foster deeper understanding.

3. **Social and Emotional Learning (SEL)**

Originating in 1990s Chicago, SEL aims to promote inclusion by nurturing five competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2022). These can improve students' social and emotional competence (SEC), which are vital in sensitive conversations.

4. **Pedagogy of Encounter**

Gill (2015) emphasizes dialogue and biographical learning, where students construct knowledge based on personal experience. Mutual listening fosters a sense of “we-ness”, essential for meaningful intercultural exchanges.

5. **Safe Spaces vs. Brave Spaces**

Safe spaces aim to minimize emotional harm and foster respectful dialogue (Council of Europe, 2015), but can become echo chambers. In contrast, brave spaces (Shelton et al., 2019) invite participants to engage more authentically, take risks, and confront discomfort as a path to deeper learning.

6. **Story Circles**

Deardorff (2020) highlights storytelling as a powerful tool to develop intercultural competence. By sharing personal stories in structured story circles, students practice empathy and build relationships in a non-threatening environment.

7. **Cultural Intelligence and Pragmatics**

Menzies (2015) distinguishes between high-context cultures (where meaning is inferred) and low-context cultures (where meaning is explicit). Understanding these differences enhances cross-cultural communication.

8. **Teaching Styles**

Stradling et al. (1984) describe six approaches to sensitive topics. The neutral chairperson is the most cautious, guiding discussion without personal input. Depending on the situation, teachers can adapt between neutral, balanced, and committed styles to better facilitate dialogue.

The combined insights from these frameworks inform the proposed SAQs toolbox, which equips teachers and learners with language and strategies for engaging in intercultural dialogue.

The SAQs Toolbox

Drawing on Bauler (2019), the toolbox includes customizable speech acts—phrases learners can use to express uncertainty or curiosity respectfully, such as: *“I’m still learning about ..., so my knowledge of ... is limited.”* Pascual (2022) recommends that learners ask questions using general terms (*“normally,” “typically,” “usually”*) rather than targeting individuals, reducing defensiveness, and encouraging more open replies. The toolbox serves as a scaffolding system for teachers and students, helping them navigate sensitive subjects without causing harm or offense.

Case Study

The theoretical insights are grounded in a case study conducted at UCLouvain’s language center. An English interfaculty conversation class with a diverse group of 14 master’s students was asked to discuss SAQs related to Black Lives Matter (BLM) and the decolonization of public spaces. To prompt discussion, I presented images of a peaceful BLM protest in Brussels, a riot in Minneapolis, and looting in Philadelphia. Clara,¹ a white Belgian student, noted how such events often escalate from peaceful protest to violence. A debate ensued. One student, Li, who had recently arrived from China, remained silent during class but later submitted a racist written response via private email, avoiding the post-class forum.

Disturbed, the teacher consulted his supervisor, who advised a one-on-one meeting with Li. However, the teacher later organized a Teams meeting with the three Afro-descendant students from the class—Dionne, Mary, and Carlos—to explain the situation and his handling of it. They appreciated being consulted, but one student, Dionne, questioned why they weren’t informed earlier.

Discussion

Reflecting on my mishandling of the incident, I propose several preventive measures based on the literature review above:

- Transdisciplinary activities could bring social issues to life, encouraging broader perspective-taking.

¹ All names have been anonymized.

- SEL tools, such as visual prompts, might facilitate deeper emotional engagement.
- The Pedagogy of Encounter could foster shared understanding by treating learners as co-inquirers and prioritizing listening.
- Establishing safe or brave spaces would set clear expectations for respectful dialogue.
- A structured story circle format might help students express experiences and opinions in a more constructive and less confrontational way.
- Preparing students in advance on cultural pragmatics could reduce misunderstandings.
- The teacher might introduce the SAQs toolbox ahead of the activity, thus enabling students to communicate more thoughtfully and ask questions appropriately.

If I had addressed these areas proactively, I could have minimized upstream the harm created by Li's racist email, and prevented having to pick up the pieces downstream, thus improving the quality of the intercultural dialogue in the class described in the vignette above.

Conclusion

Language teachers are frustrated by a lack of training and institutional tools to manage the complex dynamics of SAQs. The proposed toolbox offers practical strategies and language resources to help teachers and learners alike build both intercultural communicative competence (ICC) and structural competence—an understanding of the deeper societal forces that shape behavior and perception.

Implementing this toolbox can prevent classroom incidents like the one described in the case study, avoiding downstream damage and emotional fallout. Instead, it promotes a classroom culture rooted in empathy, listening, and shared learning, equipping students to handle controversy not as a threat, but as an opportunity for growth.

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Boosting Undergraduates' ESP Vocabulary Learning through Dialogflow Chatbot: Evidence from Foreign Trade University – Ho Chi Minh City

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Abstract

This research investigates the impact of chatbot technology on English for Specific Purposes (ESP) vocabulary acquisition among business undergraduates during blended learning at Foreign Trade University – Ho Chi Minh City. The study aimed to evaluate the effectiveness of Dialogflow chatbots as an interactive learning tool for boosting students' ESP terms/vocabularies. An experimental design was employed, involving two groups: an experimental group utilizing the Dialogflow chatbot and a control group following traditional methods. Both groups participated in pre- and post-tests to assess vocabulary gains. The experimental group received access to a chatbot containing carefully designed content, including audio recordings of ESP-related vocabulary and a user manual. Furthermore, semi-structured interviews were conducted with participants from this group to gather qualitative data on their experiences and perceptions of the chatbot's effectiveness. The findings demonstrated a significant positive impact of the chatbot on ESP vocabulary learning. Students in the experimental group exhibited predominantly higher scores on post-tests compared to their counterparts in the control group, indicating substantial vocabulary improvement. The interviews revealed that students found the chatbot engaging and helpful for their independent learning. This study carries significant pedagogical implications, suggesting that chatbots can be effectively integrated into language learning environments, particularly in ESP contexts. Educators and learners are encouraged to explore the potential

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of chatbot technology as a valuable tool for enhancing language acquisition in higher educational institutions. Further research will investigate the long-term effects and broader applications of chatbots in diverse language learning settings.

Keywords: English for specific purposes (ESP), ESP vocabulary, EFL, blended learning, chatbot

Background to the Study

For Business undergraduates at Foreign Trade University – Ho Chi Minh City (FTU HCMC), acquiring English for Specific Purposes (ESP) vocabulary is crucial. This specialized vocabulary is essential for effective communication within professional fields such as international trade and finance. FTU HCMC employs a blended learning framework, which combines traditional face-to-face classroom instruction with various online learning resources. However, traditional methods of vocabulary acquisition often prove ineffective in maintaining student engagement and ensuring long-term retention of these specific terms within this blended learning environment. Research by Hutchinson & Waters (2019) supports the notion that such conventional approaches may not sustain student interest and knowledge retention.

In response to these limitations, AI chatbots have emerged as a potential interactive and engaging alternative for language learning. Despite their promise, the application and effectiveness of these AI chatbots within the specific context of ESP higher education in Vietnam remain largely unexplored. Nguyen & Tran (2024) highlighted this gap in research regarding the use of AI chatbots in Vietnamese ESP settings. Therefore, this study was undertaken to investigate the effectiveness of Dialogflow chatbots in enhancing ESP vocabulary acquisition among Business undergraduates at FTU HCMC. The research aims to bridge existing pedagogical gaps in the field of technology-enhanced language education, particularly within the Vietnamese higher education institutions.

Literature Review

Discourse on AI chatbots in language learning emphasizes their transformative potential while noting key limitations. Lyu et al. (2024) meta-analyzed 31 studies, finding a medium effect size for chatbots in L2 learning, especially vocabulary, but criticized for short-term focus and Western bias, potentially ignoring Asian EFL cultural variations in autonomy. Qasem et al. (2023)

showed substantial Business English vocabulary gains via Dialogflow chatbots, though constrained by small, male-only samples. Similarly, Silitonga et al. (2024) reported ESP vocabulary enhancements in Indonesian students through interactive features yet lacked affective measures and blinded designs.

Romadhon (2025) found Replika AI improving ESP vocabulary with positive usability feedback but limited by sample size ($n = 44$) and vocabulary-only scope. Huang et al. (2024) reviewed chatbots for EFL speaking, highlighting engagement gains but technical issues like accent mishandling, whereas Barrot (2024) viewed ChatGPT as versatile for input/feedback, warning of dependency risks amid limited evidence. Critically, aligning with noticing theory (Schmidt, 2019), chatbots foster autonomy via exposure, yet flaws like small samples and biases demand Vietnam-specific research (Nguyen & Tran, 2024), urging rigorous validations to avoid overgeneralization.

Research Methodology

This mixed-methods quasi-experimental study engaged 40 second-year Business undergraduates at FTU HCMC (aged 19–22, CEFR B1 level). Participants were randomly allocated to an experimental group ($n = 20$) utilizing a Dialogflow chatbot or a control group ($n = 20$) employing traditional methods (e.g., worksheets). The intervention occurred over 10 weeks as part of the blended ESP course, which included weekly two-hour face-to-face classroom sessions for all participants. In addition, the experimental group was instructed to interact with the Dialogflow chatbot at least three times per week for a minimum of 30 minutes per session, either during designated self-study periods in the university's language lab or independently at home via mobile devices. This ensured focused exposure to the ESP vocabulary through interactive dialogues. The control group completed equivalent paper-based worksheets during the same self-study periods, with comparable time allocation (approximately 90 minutes per week) and content coverage to maintain parity in participant exposure to the materials. The 10-week blended ESP intervention drew from Mascull (2010), with the chatbot incorporating audio pronunciations, synonyms, definitions, and interactive dialogues. Data encompassed pre- and post-vocabulary tests (20 items each, assessing receptive/productive knowledge; Cronbach's $\alpha = 0.88$), validated by FTU experts. Semi-structured interviews with 10 experimental participants probed perceptions. Quantitative analysis via SPSS 26 included descriptive statistics, independent/paired t-tests, and Cohen's d . Thematic analysis coded qualitative data for themes like engagement. Ethical clearance was secured from FTU HCMC's Review Board.

Research Results

The study revealed that the implementation of a Dialogflow chatbot had a significant positive impact on the acquisition of ESP vocabulary among business undergraduates at FTU HCMC. At first, both the experimental group, which used the chatbot, and the control group, which relied on traditional methods, demonstrated comparable baseline vocabulary knowledge. Pre-test scores confirmed no significant difference between the groups at the study's outset, with the experimental group averaging 9.00 (SD = 3.70) and the control group 9.30 (SD = 4.10). A t-test further supported this, showing no statistically significant difference ($t(38) = -0.25, p = 0.805$).

Following the 10-week intervention, the experimental group achieved significantly higher post-test scores, with a mean of 16.40 (SD = 2.08), indicating substantial improvement in their ESP vocabulary. In contrast, the control group's mean post-test score was 11.10 (SD = 3.40). Statistical analysis confirmed this difference was highly significant ($t(38) = 5.95, p < 0.001$), with a large effect size (Cohen's $d = 1.92$), suggesting a very strong impact from the chatbot intervention. Within-group analysis showed the experimental group made significant progress from pre-test to post-test scores ($t(19) = -9.20, p < 0.001$), indicating substantial vocabulary gains for students using the chatbot. The control group also showed some progress, but to a lesser extent ($t(19) = -2.20, p = 0.040$).

Qualitative data gathered from semi-structured interviews with the experimental group provided insights into their experiences. A high percentage of responses (80%) indicated that students found the chatbot engaging. Furthermore, a significant portion of feedback (72%) revealed that students perceived the chatbot as beneficial for independent learning, promoting autonomy in their language acquisition. Participants also appreciated the flexibility offered by the chatbot, with 58% of the codes relating to this theme. However, 28% of the codes pointed to technical issues or glitches encountered during their interaction with the chatbot.

Discussion

This study found that using chatbots significantly improved vocabulary in the experimental group, supporting Schmidt's (2019) noticing hypothesis by demonstrating that chatbot interactions boost attention and retention. The effect size ($d = 1.92$) was notably higher than the average reported by Lyu et al. (2024) in their meta-analysis. This improvement, particularly in comparison to Qasem et al.'s (2023) findings, is likely due to the customized audio features

implemented at FTU HCMC, which helped overcome pronunciation challenges common among Vietnamese learners (Nguyen & Tran, 2024).

Similar to Silitonga et al. (2024), this research confirms chatbots contribute to ESP learning through their explanatory functions. However, this study's qualitative data further revealed engagement (80%) acts as a mediating factor, a point not addressed by Silitonga et al. (2024) regarding affective elements. While Romadhon (2025) also noted positive usability, FTU HCMC's blended learning environment specifically fostered learner autonomy (72%), thereby reducing concerns about over-reliance previously raised by Barrot (2024) through self-paced practice opportunities. From a pedagogical standpoint, chatbots make ESP more human-like by simulating dialogues and promoting communicative competence. However, educator scaffolding is crucial to prevent students from becoming overly dependent on the technology. The study acknowledges limitations in sample size and duration, consistent with existing literature gaps. Future research could enhance generalizability through multi-site, longitudinal studies and explore integrating chatbots with newer AI technologies to develop a more holistic range of skills.

Conclusion

This study demonstrates that Dialogflow chatbots are a transformative tool in blended learning at Foreign Trade University – Ho Chi Minh City Campus, significantly enhancing business students' ESP vocabulary for global communication. By offering interactive, human-like dialogue, these AI companions not only improve vocabulary retention and test scores but also foster student autonomy and a passion for lifelong learning, moving beyond traditional rote methods. The research highlights the immense potential of chatbots to democratize education in Vietnam, urging educators to integrate AI thoughtfully to bridge digital divides and prepare students for an interconnected world.

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Investigating the Effect of ChatGPT as a Feedback Tool on English Writing: Evidence from Foreign Trade University – Ho Chi Minh City of Vietnam

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Abstract

This study investigates the impact of ChatGPT, an AI-driven writing evaluation tool, on the writing skills of undergraduate EFL students at Foreign Trade University HCMC, conducted between March and May 2024, using ChatGPT (GPT-4o version). While AI-powered tools are believed to positively influence student writing, empirical evidence regarding ChatGPT's specific effects is still limited in Vietnam. A mixed-methods study was conducted, using three tests and focus group discussions (FGDs) with tertiary-level EFL students. Data were collected primarily through three tests of writing, each comprising three tasks focusing on process, comparison, and cause-effect. The findings revealed a significant positive impact of ChatGPT on learners' academic English writing abilities and their perceptions of its effectiveness as a writing tool. The study highlights the advantages of using ChatGPT as a dialogic tool and reliable writing resource. With appropriate student training, ChatGPT can serve as a beneficial feedback tool, particularly in large-sized classes. This research suggests that ChatGPT can be a valuable instrument in improving the writing skills of ESL students, offering a more substantial positive impact than other AI-driven tools. Future research could explore its effects on various specific genres and micro-aspects of writing, providing a more comprehensive understanding of its potential in higher educational institutions.

Keywords: AI, EFL, writing skills, formative feedback

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Introduction

Formative feedback is recognized for its beneficial influence on students' writing proficiency (Olsen & Hunnes, 2023). Typically integrated with formative assessment methods like self- and peer assessment, this feedback can address students' specific requirements for clarification across diverse writing dimensions, including content, organization, grammar, vocabulary, and style. As an ongoing process, formative feedback provides immediate assistance to students during their writing development. Nevertheless, its implementation presents challenges in large classroom settings, especially within Vietnamese educational institutions, primarily due to its time-intensive nature.

Globally, the adoption of AI-driven automated feedback is increasingly common. Leveraging large language models, tools such as ChatGPT can generate valuable writing examples, adapt text complexity to align with learners' proficiency levels, offer structural advice, and facilitate guided writing activities. These capabilities have the potential to foster self-reliance and satisfy the demand for immediate feedback. Despite these potential benefits, there is limited empirical evidence regarding ChatGPT's specific impact on writing skills in the Vietnamese context. Therefore, this study investigated the effect of ChatGPT, utilized as a feedback mechanism, on the academic writing abilities of Vietnamese undergraduates in large classes at Foreign Trade University HCMC (FTU HCMC) during the Spring 2024 semester (March to May). The central hypothesis of this research was that ChatGPT would significantly influence these students' writing skills.

Literature Review

Formative feedback plays a crucial role in enhancing writing instruction (Olsen & Hunnes, 2023). It becomes especially effective when implemented through self-assessment (SA) and peer assessment (PA), which promote metacognitive skills (Lam, 2018). These assessment strategies are beneficial in large classes by encouraging learner autonomy and engagement. However, the application of SA and PA in such contexts faces limitations, particularly with regard to scalability and consistency in feedback quality (Fathi & Khodabakhsh, 2019; Mahapatra, 2024). As a result, scholars argue for the integration of more intelligent and scalable feedback mechanisms that can maintain a dialogic, personalized learning experience (Kohnke et al., 2023).

AI-powered tools like Grammarly and ChatGPT are gaining attention due to their accessibility and rapid feedback capabilities (Marzuki et al., 2023;

Zhao, 2022). While Grammarly has been widely studied and its positive contributions to writing development are well-documented (Fitriana & Nurazani, 2022), the educational use of ChatGPT is relatively novel and underexplored. ChatGPT offers dynamic support in areas such as idea generation, text organization, grammatical accuracy, and lexical diversity (Allagui, 2023; Kohnke et al., 2023; Su et al., 2023; Wang & Guo, 2023). Moreover, its adaptive feedback delivery aligns with contemporary pedagogical frameworks that view feedback as an interactive and learner-centered process (Winstone & Carless, 2020; Barrot, 2023).

In the Vietnamese higher education context, particularly within English language teaching (ELT), the growing class sizes and limited instructor time make timely and personalized feedback challenging. Most research has concentrated on tools like Grammarly or automated test preparation software, with little empirical investigation into the pedagogical effects of generative AI technologies such as ChatGPT on students' writing proficiency in Vietnam.

Methodology

A mixed-methods intervention design was adopted (Creswell & Plano Clark, 2017). An intact class of 72 first-year undergraduate EFL students at FTU HCMC, with IELTS scores of 6.5–8.0, was divided into an experimental group (EG, $n = 35$) and comparison group (CG, $n = 37$). All had English as a foreign language, aged 18–19, and prior exposure to AI tools like Grammarly but not ChatGPT for writing. Participation was voluntary. The comparison group received traditional instructor-led feedback without AI integration, which, while effective for personalization, is less scalable in large Vietnamese EFL classes due to time constraints; this design allowed us to isolate ChatGPT's unique dialogic contributions rather than a no-feedback control, aligning with ethical considerations for student support in required courses (Barrot, 2023).

Data were collected via three writing tests (pre-, post-, and delayed post-test), each with tasks on process, comparison, and cause-effect writing (150 words each). Rubrics evaluated content, organization, grammar, and vocabulary (inter-rater reliability: Cohen's $\kappa = 0.8$). Qualitative data came from three FGDs with five EG students, focusing on experiences with ChatGPT for SA and PA.

The EG received a 2-hour training session on ChatGPT usage, adapted from Mathur and Mahapatra (2022) but customized for this study: it covered prompt engineering (e.g., 'Provide formative feedback on this paragraph's organization and grammar, suggesting revisions for clarity'), iterative

querying for metalinguistic explanations, and integration with SA/PA (e.g., using ChatGPT outputs to refine peer reviews). This was followed by a 6-hour intervention over one month (total 8 hours), integrating ChatGPT into writing lessons via guided prompts for idea generation, drafting, and revision. Specific prompts included: ‘Revise this sentence for lexical diversity while maintaining EFL learner tone’ and ‘Explain why this transition improves coherence.’ CG followed traditional instruction without ChatGPT. Post-test occurred immediately after intervention; delayed post-test and final FGD were conducted two months later.

Quantitative analysis used one-way repeated measures ANOVA, Bonferroni post-hoc, and t-tests (Loewen & Plonsky, 2017; Rose et al., 2020). Qualitative data were coded under themes (content, organization, grammar) (Huffman et al., 2019).

Research Findings

The impact was positive and significant. EG mean scores improved from pre-test (M = 12.58, SD = 0.83) to post-test (M = 19.22, SD = 2.49) and delayed post-test (M = 20.42, SD = 2.58). RM ANOVA showed significant differences ($F(2,72) = 330.70, p < 0.001, \eta^2 = 0.90$). Post-hoc revealed differences between pre-post ($p < 0.001, d = -3.30$), pre-delayed ($p < 0.001, d = -3.90$), and post-delayed ($p < 0.01, d = -0.60$). T-tests confirmed EG outperformed CG on post-test ($t(70) = -5.64, p < 0.001$) and delayed post-test ($t(70) = -9.37, p < 0.001$).

FGDs revealed positive perceptions: ChatGPT aided idea generation (22 references), focus (21), autonomy (19), collaboration (15); improved organization via connections (17), signposts (11) ; enhanced grammar accuracy (22), explanations (17). Minor negatives included reduced motivation to think (4), machine dependence (3). Students also noted sustained benefits from training-enabled metalinguistic feedback and personalized support, which reinforced retention (15 references), alongside SA/PA integration (12 references).

Table 1. Experimental group mean scores across writing tests

Tests	Mean	SD	N
Pre-test	12.58	0.83	37
Post-test	19.22	2.49	37
Delayed post-test	20.42	2.58	37

Table 2. Themes and references from focus group discussions

Themes and Sub-themes	Codes	References
Content Positive	Idea generation, focus, autonomy, collaboration	22, 21, 19, 15
Content Negative	Reduced motivation, machine dependence	4, 3
Organization Positive	Connections, signposts	17, 11
Grammar Positive	Accuracy, explanations	22, 17
Sustained Retention	Metalinguistic feedback, personalized support, SA/PA integration	15, 12

Discussion

EG’s superior performance aligns with AI-driven tool studies (Marzuki et al., 2023; Zhao, 2022), strengthening claims of positive impact on content, organization, and grammar (Rudolph et al., 2023). Delayed post-test results indicate sustained retention (Rose et al., 2020), as evidenced by FGD themes on training, SA/PA integration, metalinguistic feedback, and personalized support. This is particularly relevant for high-proficiency learners (IELTS 6.5–8.0), who leveraged ChatGPT’s adaptability. Positive perceptions confirm literature on AI tools fostering autonomy and collaboration (Dai et al., 2023; Rudolph et al., 2023), with new insights on focus and robust sentences (Gayed et al., 2022; Guo et al., 2022; Marzuki et al., 2023). Negatives echo ethical concerns like over-dependence (Yan, 2023). Findings support theories of dialogic feedback and ChatGPT as a reliable tool (Barrot, 2023; Winstone & Carless, 2020), especially in large Vietnamese classes (Thi & Nikolov, 2022; Ohio University, 2023).

Conclusion

ChatGPT significantly enhanced EFL students’ writing at an established Vietnamese university, FTU HCMC, with positive perceptions. It proves valuable for formative feedback in large classes post-training. Future studies could examine lower-proficiency groups or genre-specific applications. Limitations include the short intervention and genre focus; future work with diverse genres could strengthen generalizability.

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Concretizing Applied SLA: Design-Based Research as a Methodological Starting Point

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Abstract

Almost a decade after Han's (2016) proposal to delineate Applied Second Language Acquisition (ASLA) as a subfield distinct from Fundamental (FSLA) and Instructed SLA (ISLA), it appears that little research has yet claimed to be ASLA. This raises the questions of whether the boundaries between the subfields are too blurred and whether research is ready to embrace the ecological commitments that ASLA entails.

In this presentation, we argue that Design-Based Research (DBR) (The DBR Collective, 2003) offers an interesting example of methodological response to Han's call. Its cycles of design, implementation, and refinement allow researchers to remain grounded in local classroom realities while also tracing broader individual, structural and ideological forces at play. As such, DBR concretizes Han's agenda for ASLA by supporting research that not only addresses real classroom needs but also contributes to inform theory. This is especially relevant at a time when education is increasingly taking the AI turn, a shift that invites a broader research agenda rooted in ASLA: context-aware, critically engaged, and responsive to the evolving needs of learners, teachers, and institutions. Put differently, rather than examining innovations in isolation or through narrowly defined metrics in lab-like settings, DBR could allow researchers to examine the integration of AI in complex environments.

Keywords: Applied Second Language Acquisition; Design-Based Research; ecological validity; SLA methodology; research–practice gap; classroom-based research; AI in education; pedagogical innovation.

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This paper responds to recent debates on the ecological validity of SLA research (Douglas Fir Group, 2016; Han, 2016; Sato & Loewen, 2022) by highlighting how decontextualized studies often fail to inform teaching realities shaped by policy reforms, multilingual classrooms, and the recent integration of AI tools. In line with these concerns, it argues that applied approaches such as DBR can bridge this gap by generating context-responsive and theoretically grounded insights. As a position paper, this contribution does not present empirical data but rather articulates a methodological stance intended to advance the ongoing disciplinary conversation on ASLA.

In this light, the paper takes its cue from Han's (2016) proposal to distinguish Applied SLA (ASLA) from Fundamental SLA (FSLA) and Instructed SLA (ISLA). FSLA typically investigates language acquisition as a decontextualized process under controlled conditions, grounded in cognitive or psycholinguistic paradigms. ISLA brings research closer to the classroom, but does so primarily through experimental or quasi-experimental designs that prioritize internal validity over ecological relevance. As a result, both paradigms often fall short of capturing the complexity of situated teaching and learning. ASLA, by contrast, calls for research that is attuned to classroom realities and responsive to the social, institutional, and ideological conditions that shape them. ASLA seeks to complement FSLA and ISLA by addressing what Han terms "a yawning distance from the real world" (p. 739), and what others have described as a theory-practice dysfunction (Clarke, 1994) or research-practice gap (Nassaji, 2012; Sato & Loewen, 2022). An important question in this context has been to what extent SLA research has been able to influence L2 teaching. There is extensive discussion and debate among SLA researchers about the applicability of L2 research to language teaching. However, there is little empirical research in this area. This research was conducted to shed some light on this issue by examining how English language teachers perceive the relationship between SLA research and language teaching and to what extent they believe the findings of SLA is useful and relevant for L2 pedagogy. Data were collected from 201 teachers of English as a second language (ESL). This gap is not only logistical, i.e., arising from teachers' lack of time or access to research (Borg, 2009), but also paradigmatic; it reveals divergent views on what constitutes valid knowledge and who has the authority to produce it. Researchers tend to value generalizability and control; teachers, by contrast, seek situated, usable solutions. ASLA invites a reconfiguration of this relationship through the co-construction of knowledge with practitioners.

Roughly 10 years after Han's proposal, the label ASLA has not really caught up despite a clear need for a paradigmatic shift towards more context-responsive research. For such a reorientation to happen, new

research questions and new designs are necessary, and this position paper argues that DBR (The Design-Based Research Collective, 2003) offers a viable epistemological and methodological response to Han's call. Defined by Wang and Hannafin (2005) as "a systematic but flexible methodology, aimed to improve educational practices through iterative analysis, design development, and implementation, based on collaboration among researchers and practitioners in real-world settings" (p. 6), DBR supports research that is both theory-informed and ecologically valid. Its iterative and collaborative nature supports inquiries that arise from situated practice and produce principles transferable to similar contexts. This quality, sometimes referred to as "particularizability" in the literature (Clarke, 1994; Spada, 2019), makes DBR especially suited to the complexities of language classrooms (a point already highlighted in Romero Muñoz & Decorte, *submitted*), where local constraints determine what is possible. Unlike action research, which tends to be teacher-led and locally focused, DBR aims to contribute both practical solutions and transferable theoretical insights (McKenney & Reeves, 2018). Its responsiveness to situated realities is also consistent with principles from complexity theory, an essential component in ASLA, which frames language development as an emergent, nonlinear process influenced by the interplay of cognitive, social, and institutional factors (Larsen-Freeman & Cameron, 2008; Lowie & Verspoor, 2015).

DBR and its integrative approach seem particularly promising in contexts where practitioner knowledge has long been marginalized by institutional constraints and academic norms. In French-speaking Belgium, recent studies point to a persistent disconnect between research and classroom practice. For instance, Dachet and Baye (2021) showed that teachers often associate evidence-based practice with top-down governance rather than professional agency. Similarly, Revaz and Draelants (2024) found that even teachers who hold positive views of research tend to privilege experiential knowledge and view academic findings as difficult to access or apply. Both studies put forward the cultural and structural barriers to research uptake in Belgium, rooted in systemic fragmentation and limited opportunities for inquiry. DBR's integration of research and implementation, where pedagogical implications are co-constructed (rather than imposed), offers one way to bridge this gap.

These issues are not limited to the Belgian context; they are compounded by academic incentive structures that prioritize publication in high-impact journals over practitioner-oriented dissemination or research-practice partnerships (Sato & Loewen, 2022). DBR addresses this by positioning knowledge production as an iterative, collaborative process where teachers are seen as co-creators of knowledge (Bungum & Sanne, 2021). In doing so, it aims to generate ecologically valid principles and to reconfigure the relationship between theory and practice.

This ecological orientation also resonates with the multiscalar vision of SLA proposed by the Douglas Fir Group (2016), which urges researchers to connect micro-level classroom interaction, meso-level institutional structures, and macro-level ideologies. DBR offers the methodological flexibility to address these layers simultaneously. Two recent and complementary DBR studies in French-speaking Belgium illustrate this potential: one focused on metacognitive strategy instruction in L2 listening (Decorte et al., *in press*), the other on teachers' evolving engagement with metacognitive oracy instruction over two years (Decorte et al., 2024). At the micro level, both studies document how teachers adapted materials and practices to local classroom realities. At the meso level, they are situated within the institutional context of the *Pacte pour un Enseignement d'Excellence*, a major pedagogical reform in French-speaking Belgium. At the macro level, they challenge top-down models of reform by foregrounding teacher agency in the process of pedagogical innovation.

DBR's purpose and characteristics (situated, iterative, collaborative, and theory-oriented) thus offer a concrete way of advancing ASLA's agenda. This is especially relevant in times of rapid technological change, such as the integration of AI in L2 learning and teaching, when researchers must move beyond asking whether tools "work" to examine how they are accepted, resisted, or reinterpreted in context. These complex and layered questions require precisely what DBR has to offer. DBR does not treat pedagogy as a set of interventions to be tested but sees it as a complex ecosystem influenced by diverse actors and shifting conditions. In this sense, it provides a path for SLA to meet the challenges posed by evolving classroom realities, including those introduced by AI.

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The Impact of Virtual Reality on L2 Learning Performance: A Meta-Analysis of Effectiveness Studies from 2015–2025

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Abstract

Virtual reality (VR) has become a prominent tool in language education, enabling learners to engage with the target language in immersive and interactive contexts. Despite growing research on VR in language learning, few meta-analyses exist. This study examines its impact, with immersion level, language skill, task type, and contact with non-human characters as some of the potential moderators.

Following PRISMA methodology, peer-reviewed studies and conference proceedings published between 2015 and 2025 were identified via Scopus and Web of Science. Preliminary findings suggest overall positive trends, though further analysis is needed to determine the potential of VR. This research contributes to understanding how technological affordances interact with learner characteristics and pedagogical approaches.

Keywords: foreign language acquisition, virtual reality, L2 learning performance, meta-analysis

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Introduction

In recent years, VR has gained increasing attention in language learning and teaching due to its potential to provide immersive and interactive learning experiences. However, their actual effectiveness in improving learning outcomes remains a topic of ongoing debate (Dhimolea et al., 2022).

While several systematic literature reviews have synthesized research on this topic (e.g., Dhimolea et al., 2022; Haoming & Wei, 2024; Parmaxi, 2023), few meta-analyses have been conducted to date. As a result, there is still limited empirical evidence regarding the effects of VR on second language (L2) learning outcomes. This proceeding presents a preliminary meta-analysis of VR-based language learning research focusing on the following research questions:

1. What is the impact of VR-based learning environments on the learning performance of L2 learners?
2. To what extent does the level of immersion in virtual reality (high vs. low) affect L2 learning outcomes?

Theoretical Framework

There is no universally agreed-upon definition of VR in language education (Kaplan-Rakowski & Gruber, 2019). Broadly, VR refers to computer-generated 3D environments that simulate real-world interaction (Huang et al., 2020, p. 1389), as well as 360° photos or videos, such as those created with ThingLink (Cowie & Alizadeh 2022, p. 51). A key distinction is made between low-immersion VR (LiVR), typically desktop-based, and high-immersion VR (HiVR), which uses head-mounted displays for greater sensory realism (Kaplan-Rakowski & Gruber, 2019, p. 1).

Several recent meta-analyses have explored VR's impact on language learning. B. Chen et al. (2022) and J. Chen et al. (2022) reported moderate-to-strong effects on vocabulary, speaking skills, and motivation. Yu and Xu (2022) found that immersive VR tends to outperform less immersive alternatives due to increased learner engagement. Furthermore, some authors have proposed theoretically grounded and empirically proven models on immersive learning (Makransky & Petersen 2021), which aim at explaining both cognitive and affective factors at play.

Methodology

Study Identification and Selection

Two major academic databases, Scopus and Web of Science, were used to identify relevant studies. The study identification and selection process followed the PRISMA 2020 guidelines (Page et al., 2021) to guarantee transparency and replicability. Studies were screened and selected using a set of predefined inclusion criteria presented in Figure 1.

The database search yielded a total of 1,315 records. After removing 150 duplicates, 1,165 studies remained for title and abstract screening. During this phase, inter-rater reliability was established with a Cohen’s kappa of 0.72, which refers to a substantial agreement (McHugh, 2012). 1,106 studies were excluded. The remaining 59 studies underwent full-text review, during which inter-rater reliability increased to Cohen’s kappa = 0.83, which represents an excellent agreement (McHugh, 2012). This process initially led to a corpus of 23 studies. However, nine studies lacked a clear control group, leaving a final corpus of 14 studies. A preliminary PRISMA 2020 flow diagram is provided below (see Figure 2).

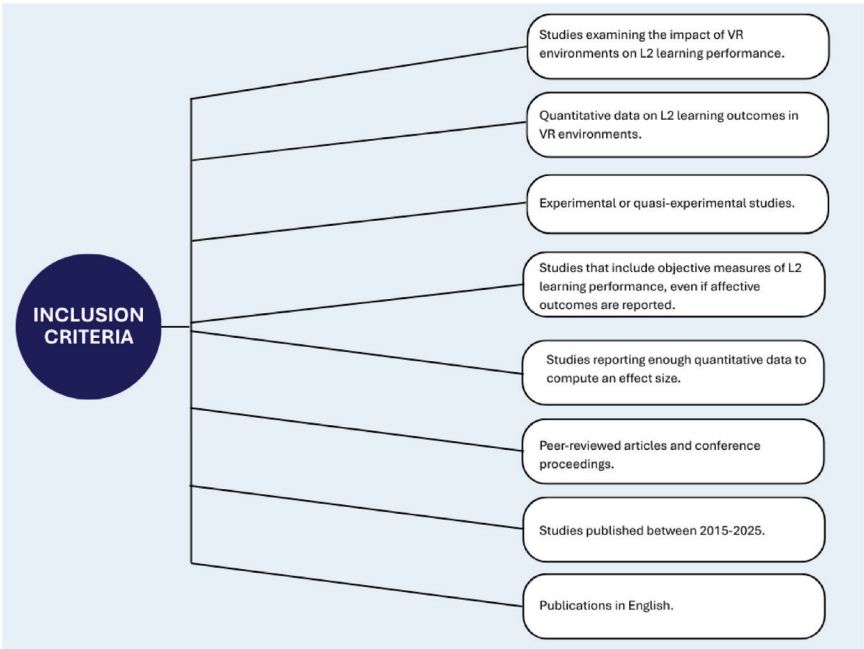


Figure 1. Inclusion criteria

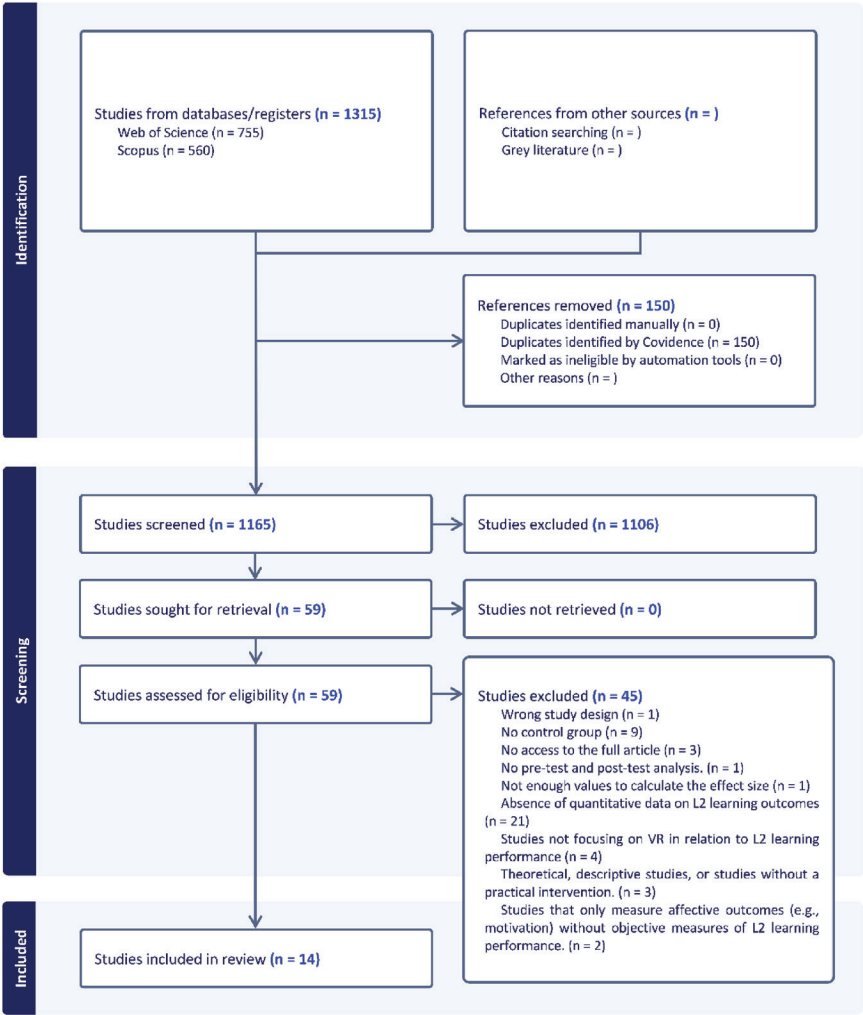


Figure 2. PRISMA Flow diagram of the article screening

Effect Size Computation and Statistical Approach

The effect sizes in this meta-analysis will be estimated using the formula of Morris (2008), with the variance of effect size computed with Lipsey and Wilson’s (2001) formula and adjusted for clustering (Hedges, 2007). Analyses will be conducted in R (R Core Team, 2020) using the metafor (Viechtbauer, 2010) and clubSandwich (Pustejovsky, 2020) packages.

A Correlated Hierarchical Effects (CHE) model with Robust Variance Estimation (RVE) will be applied (Hedges et al., 2010; Pustejovsky & Tipton,

2022) to factor in dependencies between effect sizes. Meta-regression models (Schwarzer et al., 2015) will be used to examine the factors contributing to the heterogeneity of effect sizes. Among the factors studied, some relate to the quality of the studies and others to the specific characteristics of the intervention. Among the features of the study design, sample size and the type of measurement instrument is of particular importance, as it is known to have a significant effect on effect sizes (Cheung & Slavin 2012; Slavin & Madden, 2011; Slavin & Smith, 2009).

To assess publication bias, we will successively produce a funnel plot, perform an Egger test (Egger et al., 1997) and use the Trim-And-Fill (Borenstein et al., 2009) methodology. To determine the robustness of the results (Higgins et al., 2019), a leave-one-out meta-analysis will be carried out. This sensitivity analysis method consists in successively conducting multiple meta-analyses, excluding one study in each analysis in turn. A second sensitivity analysis will compare the mean effect sizes of the studies most aligned with our quality criteria with the mean effect size of the meta-analysis.

Preliminary Results

The corpus consists of 14 studies published between 2015 and 2025. One study in 2015, one in 2020, three in 2022, two in 2023, three in 2024, and four in 2025. Across all studies, the total number of participants amounted to 712.

The studies targeted a range of language learning domains. Vocabulary was the most frequently studied (7 of 14), contrasting with previous reviews where speaking skills were most common (e.g., J. Chen et al., 2022; Parmaxi, 2023).

None of the studies reported negative effects of VR on L2 outcomes. Most showed positive impacts, though some were more nuanced (Xie et al., 2025). Immersion levels across studies were evenly split between high and low. With respect to task type, eight studies featured story-driven tasks, and six used open-ended ones. Participants engaged with non-human characters in six studies, while in the remaining eight they did not.

Effect size calculations are underway and will estimate VR's impact on L2 performance, including potential moderating factors such as immersion or language skill. This analysis aims to clarify the overall effectiveness of VR for L2 learning and inform future research and practice.

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Enhancing German as a Foreign Language Speaking Ability through Social VR: The Design and Implementation of *TravelKit*

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Introduction

Speaking is widely recognized as one of the most challenging competencies in second language (L2) acquisition. It requires the integration of multiple linguistic and cognitive processes, including lexical retrieval, grammatical planning, prosodic control, and interactional management (Saito & Hanzawa, 2018). Some learners often face communicators-oriented problems, which are linked to their self-perception and anxiety (Jamshidnejad, 2020; Newton et al., 2022). These factors necessitate innovative approaches to bridge the gap between theory and practice in L2 speaking instruction.

Digital Game-Based Language Learning (DGBLL) has shown strong potential for enhancing motivation, engagement, and communicative competence through meaningful and goal-oriented interaction (Peterson et al., 2020; Reinhardt & Sykes, 2014). When integrated with Virtual Reality (VR), it offers immersive, embodied learning experiences that simulate real-world interactions in engaging, low-risk environments (Gruber & Kaplan-Rakowski, 2022).

Building upon these insights, this study introduces *TravelKit*, a Social VR game designed to enhance L2 German speaking ability through collaborative missions. It addresses the following research questions:

1. How does a Social VR game support learners' development of L2 speaking?
2. How do individual learner profiles mediate these outcomes in immersive collaborative tasks?

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By integrating empirical measures of oral performance with learners’ perceptions, this study seeks to contribute to current understandings of how immersive, game-based environments can support the development of L2 speaking ability in socially situated contexts.

Game Design: *TravelKit*

TravelKit is a Social VR game developed on the *Rec Room* platform for the purpose of L2 German learning. Two players collaborate as travelers who arrive in a virtual German-speaking city and must complete a series of everyday scenarios, such as finding a lost passport, ordering food in a restaurant, or helping a friend navigate public transport, using only German. Each mission provides clear communicative goals, contextual clues, and feedback through task completion (e.g., unlocking the next location or earning travel-themed tokens).

For example, in the *Lost Passport* mission, one player realizes their passport is missing before departure, while the partner must ask questions, provide suggestions, and coordinate steps to locate it. Such tasks stimulate authentic interaction, promote speaking development through repeated reformulation, and foster collaborative problem-solving.

The mechanisms of *TravelKit* are grounded in well-established principles of second language acquisition. Each mission is built around an information-gap or problem-solving task that requires players to communicate effectively to achieve shared objectives, thereby simulating real-life communicative situations and fostering meaningful speaking practice. In this sense, the game draws on the Ecology of Learning (Douglas Fir Group, 2016) by embedding semiotic and interactive cues, such as menus, signs, and maps, that invite learners to act and speak within context-rich environments. It also reflects Instructed

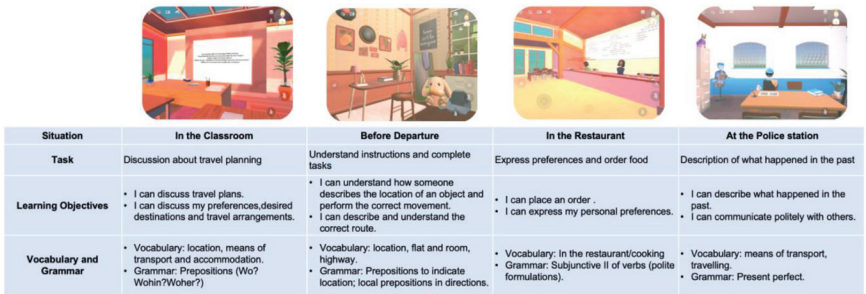


Figure 1. Overview of *TravelKit* scenarios and linguistic goals

Second Language Acquisition (ISLA) (Han, 2016) principles by promoting negotiation of meaning, modified output, and collaborative engagement.

Through these interlinked design elements, *TravelKit* creates affinity spaces that mirror everyday contexts relevant to A2-level German learners. The linguistic objectives and vocabulary focus of each scenario are summarized in Figure 1, illustrating how communicative and pedagogical goals are aligned within the gameplay experience.

Methodology

Study Design

This research employs a learner-centered, mixed-methods design. The exploratory study aimed to evaluate *TravelKit* both as a pedagogical intervention and as a research tool.

The exploratory phase spanned seven weeks, combining classroom instruction with VR gameplay. Participants completed a pretest to establish baseline speaking ability, followed by regular German classes, then they will take a mid-test. After the mid-test, learners engaged with *TravelKit*, playing two scenarios per week over two weeks. A post-test was administered to assess post-intervention speaking gains. Seven university students aged 18 to 22, all with A2-level German proficiency (CEFR), participated. Most were native French or Dutch speakers with minimal prior exposure to German-speaking environments.

Data Collection

Data collection addressed both linguistic performance and learner perceptions. *Linguistic performance* was tested through standardized tasks adapted from the Goethe-Institute A2 speaking test and analyzed using PRAAT (Boersma & Weenink, 2007) focusing on three quantitative indicators representing different dimensions of speaking ability:

- Speech rate (words per minute), reflecting temporal fluency;
- Mean words per T-unit, indicating syntactic performance; and
- Lexical measure, operationalized as *lexical density* (the proportion of lexical words to total words), serving as a proxy for lexical performance within this exploratory dataset.

Learner perceptions were captured through a 7-point Likert questionnaire completed after game scenarios, generating composite scores for cognitive and affective factors. These dimensions were adapted from established instruments from Makransky & Petersen (2021) and Petersen et al., (2022).

Semi-structured interviews were conducted after the first and final scenarios to gather qualitative insights on learners' experiences, perceptions of agency, and challenges encountered during the VR sessions.

Data Analysis

A triangulation matrix synthesized data across learner profiles from interviews, questionnaire scores, and speaking progression metrics. Analysis identified key affective and behavioral factors such as anxiety levels, confidence, and strategy use, resulting in three distinct learner profiles:

- a. Moderate-Anxiety Reflective Learners, who exhibited balanced gains in fluency and complexity.
- b. High-Anxiety Recovering Learners, who struggled with cognitive overload that constrained their progress.
- c. Low-Anxiety Strategic Learners, who demonstrated steady lexical development through targeted strategies.

Key Findings

The findings illustrate how individual learner profiles shaped outcomes within the VR environment. Moderate-anxiety learners demonstrated the most balanced improvements across different dimensions of speaking ability, whereas high-anxiety learners experienced cognitive barriers that limited their oral performance. In contrast, low-anxiety learners capitalized on strategic engagement and peer interaction to enhance lexical use and overall fluency.

Substantial variation emerged in affective and cognitive experiences, including differences in sense of presence, motivation, and perceived cognitive load. While the VR setting enhanced engagement, it also introduced cognitive challenges for some learners.

Interactional dynamics played a pivotal role in shaping outcomes. Effective peer collaboration, clarity of task instructions, and positive self-perception facilitated learners' ability to navigate communicative breakdowns and maintain interactional flow, as noted by several participants during the interviews.

Conclusion and Future Directions

This exploratory study suggests that *TravelKit* offers considerable potential for supporting L2 German speaking ability through immersive and collaborative learning. The findings emphasize the importance of adapting VR interventions

to accommodate diverse learner profiles, particularly in managing cognitive load and anxiety.

Limitations such as small sample size and short intervention period limit generalizability but provide insights for refining the design. Building on these insights, the main study is currently underway. It extends the intervention to eight weeks and introduces eight distinct scenarios, each designed to offer varied communicative contexts. This expanded version aims to provide a more comprehensive and longitudinal understanding of how Social VR environments impact L2 German speaking ability. The ongoing study also incorporates pre-training sessions and further optimized collaborative scenarios to better support learner engagement and mitigate cognitive overload.

Through this iterative research process, *TravelKit* aspires to complement traditional language instruction by offering learners a dynamic, interactive platform for practicing spoken German in simulated real-world settings.

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Centring Humanity in Academic Writing: Learning Diaries as Windows to Student Experience

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Abstract

This conceptual paper sets out a research agenda to qualitatively explore the relationship between student reflection and metacognition on an academic writing course. Taking a self-determination theory approach to analysing students' learning diaries, the study aims to determine how far the basic psychological needs of competence, autonomy and relatedness are met when self-regulation and autonomy are encouraged. Fostering such a learning environment affords a balance between pedagogical effectiveness and humanistic values.

Keywords: reflective learning diaries, academic writing, self-regulation, self-determination theory

Introduction and Background

This research emerged from observations that students' learning diary (LD) entries demonstrated increased reflexivity following targeted instructor feedback. Students were encouraged to engage in authentic, personal reflection on their academic writing (AW) experiences, transcending superficial accounts of classroom activities to examine transferable learning applicable across their studies. By the second semester of course delivery, the potential for post hoc investigation became apparent.

Academic writing presents universal challenges irrespective of students' linguistic backgrounds or social contexts. Successful writing requires

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mastery of audience expectations, coherent argumentation, and thesis development with substantive support. Single-semester AW courses, constrained to approximately 14 weeks, typically emphasize text production and genre conventions (Hyland, 2008). However, treating academic writing as a skill rooted in deep cognitive engagement reveals important potential for fostering autonomous, self-regulated learners who can transfer reflective strategies to broader learning experiences (Little, 1999). Transparent, honest feedback exchanges between students and instructors facilitate such outcomes.

Reframing Learning Through Reflection

Traditional approaches to Anglo-American academic writing frequently focus on correctness and adherence to discipline-specific conventions (e.g., Hyland, 2006). LDs provide a means of centring human reflection and agency in the AW classroom. Through informal and ongoing personal writing about their AW development, these diaries enhance students' metacognitive awareness and self-efficacy (Glava & Glava, 2011). For instructors, learning diaries provide insights into how individual students navigate their expanding knowledge and emerging academic community membership, while also supporting their developing writer identity (Klimova, 2015).

Theoretical Foundations

Learning environments which acknowledge competence, encourage autonomy, and nurture relatedness enhance learner motivation (Ryan & Deci, 2000). Students engaging purposefully with learning diary activities can document their developing competence, autonomy, and relatedness, and thus increasing metacognition.

Methodology

Students were instructed to submit four LD entries of approximately 250 words detailing what they had learned each lesson. The 36 winter-semester (WS2024) cohort uploaded monthly entries, while the 36 summer-semester (SS2025) cohort submitted all entries collectively at semester's end. The WS2024 monthly instructor feedback proved valuable for generating meaningful class discussions. The SS2025 cohort's lack of monthly feedback resulted in notably more descriptive, less reflective final submissions. Grading ensured compliance while creating tension with authentic developmental reflection—a conflict requiring sensitive navigation through invitational language, non-judgmental promises, and genuine feedback exchange.

Analytical Framework

Taking a qualitative approach, LD data was analysed thematically with MaxQDA to identify patterns corresponding to Self-Determination Theory's three basic psychological needs (BPNs): competence, autonomy, and relatedness. Table 1 shows example sub-codes for each parent code and where the BPN was satisfied or thwarted. The guiding research question examines how these BPNs manifest in student writing, supported by sub-questions:

- What patterns emerge in autonomy development over time?
- How does competence-building relate to metacognitive awareness?
- What role does relatedness play in academic writing development?

Results: Student Experience and Reflections

Generally, most students took a predominantly descriptive approach to “reflecting on learning”. Some students used the LDs as an opportunity to express dissatisfaction with the compulsory nature of the course – loss of **autonomy**; but then admit to having found some aspects useful and motivating – satisfaction of **competence**:

I attempted to get out of this course, but was informed that it is compulsory and there is no way around completing it. (WS00)
... I think the outline guide will be very helpful when writing my Master's thesis as it is a kind of recipe for how I should write the thesis. (SS19)

Learning from mistakes was taken as a pragmatic method for improving writing – and consequently satisfying the need for **competence**:

I have realised I have been forgetting to add my own voice the whole time. ... despite this realisation being rather frustrating, I am glad that I have still enough space to make all necessary changes. (WS01)

Realisation that some people face similar challenges helps to build a sense of **relatedness** within the group – and wider academic community:

interestingly, a lot of us had made similar methodological approaches to our papers. This showed me that we were all able to apply the knowledge from the course in a similar way. (SS19)

Table 1 presents a preliminary analysis of coded data from the WS2024 diaries.

Table 1. Distribution of student responses coded by SDT’s three basic psychological needs

BPN	Valence	Sample sub-codes	Frequency	% of Total
Autonomy	Positive	Future focus (30); Self-insight/learning (24); New knowledge (25); Self-regulation (12)	94	36%
	Negative	Poster presentation challenges (4); Dissatisfaction with class (1); In-class discussion not helpful (2)	9	3.4%
Relatedness	Positive	In-class discussion/activity (15); Building on prior knowledge (11); Instructor comments (9); Engaging experience (7)	60	23%
	Negative	Repeat of lesson point (4); Time and Space (2)	9	3.4%
Competence	Positive	Competence (32); Self-awareness/confidence (16); Confidence growth (11)	78	30%
	Negative	Struggles (2); Lack of self-confidence (1)	11	4.2%
Total			261	100%

Discussion

The integration of learning diaries served as bridge between “academic discourse” and the human experience of learning. Reading students’ thoughts allowed the instructor to respond flexibly during the course to the group’s needs. This has implications for building inclusivity and responsive learning environments, i.e., creating affective stability which supports metacognition and ultimately self-regulated learning (Efklides & Schwartz, 2024). Deeper reflection and dialogic exchange improved where students were encouraged to express openly and honestly without judgement. Pursing this research agenda can uncover how reflective practice supports the development of self-regulation strategies. Using the lens of SDT’s 3 BPNs, content from the LDs can shed light on how students experience learning in the context of academic discourse.

Conclusion

The explicit use of reflective learning diaries in academic writing course curricula responds to the limitations of product-oriented, decontextualized instruction. Centring student experience through diaries makes the writing process more transparent, supports the development of metacognitive skills, and creates space for honest, constructive feedback. When that feedback is bi-directional, course design can be better tailored to the evolving needs of each new cohort. By foregrounding humanity in writing pedagogy, particularly in increasingly multilingual classes, we not only empower students to become more effective writers but also more autonomous, resilient learners—both within and beyond academia.

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Modality Matters: Eye-Tracking Evidence of Attentional Engagement in Second Language Feedback Processing

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Background

While recasts are widely recognized as beneficial for the development of second language (L2) (Li, 2010), their effectiveness in synchronous computer-mediated communication (SCMC), particularly videoconferencing, remains underexplored. A key affordance of videoconferencing is its capacity to deliver multimodal recasts, operationalized in this study as oral reformulations accompanied by synchronized on-screen captions (i.e., captioned oral recasts). This format draws on the sensory–modality framework of working memory (Baddeley et al., 2009), which highlights the benefits of distributing input across the auditory and visual channels. When aligned precisely, this dual input can enhance processing efficiency and reduce cognitive load (Mayer, 2014; Sweller, 2005). Empirical studies further support these claims. Reading-while-listening research shows that audio–text combinations foster consistent eye movements and deeper processing (Hui & Godfroid, 2025). Similarly, captioning research shows that textual support can enhance learners’ attention to grammatical forms, aid speech segmentation, and improve comprehension and retention (e.g., Gass et al., 2019; Lee & Révész, 2020; Reynolds et al., 2022).

Multimodal recasts also combine the strengths of written and oral feedback. Written input offers visual salience and persistence—a record learners can reread (e.g., Smith, 2004; Yilmaz, 2012)—whereas oral feedback provides immediacy, prosodic cues, and turn adjacency, facilitating real-time comparison between the learner’s output and the target form (Leeman, 2003; Long, 2007). Each modality, however, has limitations: oral recasts may be misinterpreted as

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confirmation, and text-based feedback often lacks precise temporal alignment with the utterance it addresses. The hybrid nature of multimodal recasts mitigates these weaknesses, producing feedback that is both perceptually salient and interactionally contingent.

Despite these theoretical and empirical foundations, direct comparisons of multimodal versus unimodal recasts in video-based interaction are scarce (Jung & Révész, 2024). Consequently, little is known about how feedback modality shapes learners' visual attention to the target forms, and how such attentional engagement relates to subsequent grammatical gains during real-time video-based tasks. This study addresses these gaps by investigating whether multimodal recasts promote more focused visual attention and facilitate greater grammatical development than oral-only or text-only recasts, and whether the link between attention and learning varies depending on the feedback modality.

Research Questions

1. How does the recast modality affect L2 grammatical development during videoconferencing tasks?
2. How does the recast modality affect visual attention, and does the relationship between attention and grammar learning vary across modalities?

Methodology

This study employed a pretest–post-test–delayed post-test design with three treatment sessions. A total of 120 Korean learners of English as a foreign language were randomly assigned to one of four groups: oral recasts, written recasts, multimodal recasts (captioned oral), or no recasts (control). During the treatments, participants completed three videoconferencing tasks designed to elicit two target constructions: the third-person singular and the present progressive forms. Recasts were provided immediately following the learners' errors according to group conditions. Oral recasts were delivered live; written recasts appeared as real-time on-screen text; and multimodal recasts integrated both, with the written recast simultaneously displayed as a caption at the bottom of the screen during oral delivery.

Eye-tracking data were collected using a Tobii 60Hz tracker for the written and multimodal groups to examine visual attention to feedback. Five indices were analyzed: two reflecting early-stage processing (first-pass reading time and skipping rate) and three reflecting later and more effortful processing

(rereading time, total fixation duration, and number of visits) (Conklin et al., 2018; Godfroid, 2020).

Grammar development was assessed using three tasks: an oral production test, which, although untimed, induced greater perceived time pressure and primarily tapped procedural knowledge; a written production test, which allowed more planning time, thus engaging both declarative and procedural knowledge; and a spontaneous oral production test, which required the learners to use the target forms in a more communicative scenarios, thereby enhancing ecological validity. By utilizing different test modes, the design aimed to capture not only accuracy gains but also the depth and transferability of learning across modalities (DeKeyser, 2007).

Results and Discussion

Effects of Recast Modality on L2 Grammatical Development (Research Question 1)

Mixed-effects analyses revealed that the multimodal group significantly outperformed the unimodal and control groups across all three assessments in both the immediate and delayed post-tests. No significant differences emerged between the oral and written groups. These findings suggest that distributing feedback across the auditory and visual channels enhances processing and retention. The multimodal recasts may have amplified the feedback's salience by combining the clarity and durability of written input with the immediacy and prosodic cues of oral delivery. Moreover, the captioned format likely facilitated speech segmentation and form-meaning mapping by reinforcing phonological input with orthographic representations (Bisson et al., 2014).

Effects of Recast Modality on Visual Attention and the Attention-Learning Link (Research Question 2)

Eye-tracking data showed that the multimodal group exhibited significantly greater visual attention to the feedback than the written group, as evidenced by longer total fixation durations, greater first-pass and rereading times, more frequent visits, and lower skipping rates. Moreover, the attention-learning relationship was significantly stronger in the multimodal group than in the written group: participants who engaged in longer fixations, extended initial reading, and repeated reanalysis of the target forms achieved greater immediate and delayed post-test gains across all outcome measures. These findings suggest that multimodal recasts heightened the feedback's salience

and reduced the processing load, enabling learners to sustain attention for both initial detection and deeper reanalysis. Importantly, the emergence of a stronger attention–learning relationship in the multimodal condition indicates that multimodal input more effectively supported the consolidation and transfer of grammatical knowledge across modalities than written feedback alone.

Conclusion

Multimodal recasts (i.e., captioned oral reformulations) proved more effective than unimodal recasts in video-based synchronous computer-mediated communication, eliciting greater visual attention and facilitating more substantial grammatical development. Delivering the same correction synchronously through speech and text enhances salience, reduces cognitive load, and enables learners to align auditory and visual cues, thereby promoting deeper cognitive engagement with the target forms. The robust associations between visual attention and learning gains in the multimodal condition indicate that effective feedback should support both perceptual processing and cognitive integration. In line with the conference’s theme, these findings suggest that multimodal recasts can leverage technological affordances while maintaining human-centered pedagogy: they sustain meaningful interaction and broaden access to interactive feedback. By engaging dual input channels, multimodal recasts offer flexible access to feedback, allowing learners to process input through the mode—auditory or visual—that best suits their individual abilities and learning conditions. This adaptability helps address challenges such as limited auditory proficiency, poor audio quality, or differences in cognitive style. In this way, multimodal feedback supports linguistically effective and socially inclusive learning in real-time, technology-mediated L2 classrooms.

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Integrating Gender Sensitivity into English Language Teacher Education: Building Inclusive and Equitable Classrooms

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Abstract

Gender sensitivity is an aspect of inclusive education, and as such, it receives far less attention than it deserves in most English Language Teaching (ELT) teacher preparation programs. The article discusses how gender sensitivity can be effectively taught to promote equitable practices and challenge harmful stereotypes around gender that many students encounter in language classrooms. It provides an overview of some of the more unaddressed aspects of gender bias in ELT, including material analysis, classroom interaction reflection and inclusive lesson design. The discussion will focus on the impact that some educators' deep beliefs and biases may have on upper-stated gaps: belief, participation and feedback. Thus, it is important to spread knowledge and provide teachers with tactics to establish a fair, collaborative and gender-sensitive atmosphere.

Keywords: Gender sensitivity, English language teaching, inclusive lessons, gender equity, critical analysis

Introduction

In recent years, inclusive education has become a central focus, highlighting equity and diversity in all areas of education (UNESCO, 2017). It reconsiders teacher education programs, advocating for interdisciplinary perspectives including gender equity. In English Language Teaching (ELT), classrooms are

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now recognized as not being ideologically neutral settings, but contexts impacted by complex social, cultural, and gendered relations (Norton & Pavlenko, 2004). Nevertheless, the field continues to be less than student-oriented regarding their gender, with limited potential and promise for developing a gender sensitivity in most ELT teacher preparation programs (Gray, 2013). More importantly, the potential to engage with gender-responsive pedagogies in teacher education programs is problematic, since unchecked biases may be expressed and reinforced as stereotypes and unequal treatment in classroom practices, materials and assessment (Gabriel & Tate, 2017).

Previous studies have shown that teacher beliefs and perceptions, often informed by subconscious biases, can shape students' engagement, participation, and achievement in gendered ways (Sunderland et al., 2000). Additionally, there exists opposition in ELT textbooks to indicators that imply "genderedness," particularly in the views portrayed of gender that reflect normative and binary characterizations (Lee & Collins, 2010). While there is some recent activity working to resist bias and material reflecting biased representations, many preservice teacher education courses and programs lack support to directly teach preservice teachers to recognize and mitigate their biased perspectives in personal enactments (Hosseini & Amirkhani, 2025).

The current study will address this gap by examining the ways that gender-inclusive curriculum and pedagogy can be developed within ELT teacher education by using a reflective and practical pedagogy. This research aims to develop a framework to assist preservice ELT teachers to develop gender-equitable practices. Specifically, it aims to: (1) establish if there is evidence of latent gender bias in ELT materials and/or classroom interactions; (2) assess the role of teacher cognition as mediating factors of gendered bias; and (3) provide instructional opportunities to implement a pedagogical model prioritizing gender-friendly teaching practices.

The theoretical significance is that it takes a step in bridging a divide between gender theory and ELT practice and gives an applied model to fostering critical gender consciousness amongst future educators. Practical implications include a range of examples for curriculum designers and teacher educators to consider how to integrate gender sensitivity into pre-service training. Ultimately, the article will argue that not only do we need gender-sensitive teachers in our field: it is an ethical responsibility and pedagogical urgency to ensure equitable and effective language education.

Theoretical Framework

Integrating gender sensitivity within ELT is built on multiple intersecting theoretical foundations, including *feminist pedagogy*, *critical language*

awareness and social constructivist paradigms of learning. Taken together, these approaches inform the theory of how gender is manifested in education and the theory behind why teacher training must actively intervene in issues of gender equity.

Feminist Pedagogy and Gender as a Social Construct

Feminist pedagogy poses a challenge to traditional and hierarchical models of education, highlighting this is an inquiry into issues of equity, collaboration, and critical thinking. (Hooks, 1994).

Basic to this view is the notion that gender identity is not biologically fixed, but socially constructed through cultural norms, power relations, and institutional practices (Butler, 1999). This would mean in the ELT context to understand the impact of prevailing gender ideologies on language use, materials, classroom relations and teacher expectations in daily ELT work. Feminist pedagogy calls upon teachers to question gendering processes, to abolish the practice of gender binaries, to encourage inclusive discourses and to raise the consciousness of the learners so that they fight discrimination whether within or outside the domains of the school.

Critical Language Awareness (CLA)

The Critical Language Awareness framework (Fairclough, 2013) supports the approach that language is never neutral but serves to legitimate social hierarchies, including gender inequalities. CLA urges teachers and learners to consider the ideologies behind language use and the ability of textbooks, the media, and practices within the classroom to foster gender stereotypes. Via the application of CLA to ELT, future teachers can acquire the capability to scrutinize gender-biased language representations and to challenge the gender-normative use of language and design learning materials that reflect diversity and inclusivity.

Social Constructivism and Inclusive Education

Social constructivism (Vygotsky, 1978) maintains that knowledge is co-created in interaction and through social engagement. From this prospective, an inclusive education would mean setting up learning environments that support and nurture the plurality of identities and experiences of learners.

The integration of gender sensitivity into ELT teacher education goes with this paradigm given that it sees the learner as a highly abstracted social being, with some intersecting social variables constraining learning, such as gender, culture and language background. Therefore, teacher educators ought to exemplify these inclusive practices themselves, fostering an opportunity for

student-teachers to learn to enact in their classrooms the spirit of inclusivity that promotes equity of participation and mutual respect.

Discussion

The findings and observations that come forth from literature as well as from classroom city experiences highlight an urgent need to make gender sensitivity a substantive and intentional matter within the ELT Education. While there seems to be some degree of awareness regarding inclusiveness among teachers, many of the pre-service teachers actually enter their training with no critical tools with which to uncover gender bias in teaching materials or in the classroom behavior itself; hence, oftentimes, language learning environments do more to replicate gender inequities than actually confront them.

ELT materials are one of the major handholds of gender bias. Gender roles portrayed by textbooks tend toward stereotyping-men as active and in professional environments while women are seen as passive and domestic-oriented. These representations tend to create perverse ideas in the minds of learners about gender norms. Each time the bias remains unchallenged, it further enhances limiting views and marginalizes a learner who decides not to conform to such precepts on gender. Training participants were always amazed at how these patterns had become normalized and thus expressed the need for explicit training on analyzing materials for bias.

Another important issue concerns interaction in classrooms and teacher feedback. Research and reflections observed that teachers tend to call males more often in classrooms where both genders exist, give long-winded feedback to certain learners on the basis of gendered expectations and interpret behavior through a gendered lens (labeling boys as assertive and girls as emotional, to cite just one example). These practices negatively impact student participation and self-confidence. The steps of reflective tools consisting of critical incident analyses were considered to help pre-service teachers recognize how their unconscious bias may contribute to classroom dynamics and learner outcomes.

The beliefs and identities of teachers thus appeared to play an important role in gender-sensitive practices. Here, most teacher trainees were in favor of inclusive classrooms in principle in opposition to having to translate that principle into concrete actions in their lesson planning and interaction modes. We clearly see the need for reflective teaching and guided spaces to investigate, confront, and reconstruct beliefs.

Facilitators said that when gender sensitivity was placed not as a moral issue but more as a teaching skill tied to efficacy, trainees seemed more willing to go at it on a deeper level.

The practical application of the training was much needed to really cement the theory-practice gap. For instance, in activities such as designing an inclusive lesson, rewriting biased text, or a media literacy activity, student-teachers took a further step from abstract concepts toward actual useful tools in classrooms. In one concrete example, rewriting dialogues in a textbook to avoid stereotypical characterizations or creating a lesson that analyzes gender representations in the media gave trainees the chance to actually work on developing inclusive curriculum content. Such activities concretized the idea of inclusive education and also engendered the spirit of agency and responsibility inside student-teachers.

Moreover, without support from institutions, gender sensitivity is likely to be treated as a side issue when no curricular space or leadership support is available. To sum up, gender sensitivity integration into ELTE is needed and achievable through raising awareness of bias, entering into critical reflection, and providing concrete tools for teaching. Most importantly, it has to bring a change in how teacher education looks at the idea of professionalism, not simply as the ability to teach languages, but as a moral responsibility to secure equitable and inclusive learning spaces. Through this perspective, gender sensitivity is the basis rather than an “extra” for quality language teaching in diverse, global classrooms.

Conclusion

The study emphasizes the urgent need to cement gender sensitivity into ELT teacher education as a central pedagogical competency rather than a peripheral concern. While at some level it might be said that there is an understanding of gender inclusivity, in reality, most preservice teachers do not possess the critical skills required to recognize and deal with gender bias within materials, classroom procedures and feedback. Many gendered assumptions remain unexamined in the absence of overt training and translate into domain inequalities concerning student engagement and learning outcomes. Through reflective practices, redeveloping lesson plans and materials as inclusive as possible, teacher trainees have the opportunity to start closing that gap between theory and practice. The findings, therefore, also emphasize an important consideration with respect to teacher beliefs and institutional support toward inclusive practice. Thus, ultimately, the study argues that there needs to be a reconceptualization of the ELT professionalism, which considers a moral and pedagogic accountability to achieve social justice in participation. Gender sensitivity should not be taken as an optional accessory but positioned as a founding pillar of a superior, inclusive language education amidst the highly diverse classrooms of today.

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A Theoretical Conceptualization of e-Learning Hegemonies Within the Context of Language Teaching

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Abstract

While offering global learning opportunities, e-learning and computer assisted language learning (CALL) also have the potential to perpetuate digital colonialism, particularly in the Global South. This study provides a theoretical conceptualization of existing e-learning hegemonies within the context of language teaching, exploring the pervasive influence of linguistic, technological, economic, educational, sociocultural, and sociopolitical hegemonies that create effective barriers to inclusive CALL. In my presentation, I will attempt to reveal how these hegemonies silently yet effectively lead to the marginalization of certain groups, especially in underrepresented and/or misrepresented countries like Iran. I further claim that the existence of “inclusivity gatekeepers” can often defy the very attempts to decolonize digital learning spaces. I will end my presentation by providing tentative solutions to facilitating inclusiveness in digital education.

Nowadays, there are innumerable studies extolling learning via digital technologies, indicating it can be emancipatory, and can encourage autonomous learning. And, true though it may be, it is crucial for educators to recognize that digital learning environments are equally capable of oppressing as empowering. Rather than being intrinsically empowering or even neutral, the use of digital technologies can and does often result in the (re)production of inequities and reinforcement of systemic injustices, frequently labelled “electronic imperialism” (Marandi, 2023b), “digital (neo)colonialism” (Zembylas, 2023), or even “algorithmic coloniality” (Mohamed et al., 2020). Unfortunately, the studies attempting to document such forms of digital supremacy and how they manifest in e-learning are usually very restricted in scope. There appears

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to be very few attempts to conceptualize and represent the various forms that *e-learning hegemonies* can take, notwithstanding the importance of gaining a comprehensive understanding of this matter, particularly with regard to language education. As Traxler (2023) rightly points out, “colonialization is present in most aspects of using digital technology to learn language” (p. 20).

In an attempt to elucidate this issue, Marandi et al. (2015) propose the existence of six e-learning hegemonies, each of which can have an adverse effect on CALL practices. These six hegemonies are: linguistic, technological, economic, educational, sociocultural, and sociopolitical hegemonies.

Briefly, *linguistic hegemony* refers to the dominance of a certain language, script, or discourse in online education (e.g., Anglophone), thus marginalizing other languages and scripts, as well as privileging specific epistemologies rooted in dominant traditions. Meital and Jason (2022) note, for example, that there are fewer than 30 languages with digital vitality, and that approximately 82% of online content is represented by only 10 languages, with English heading this short list.

Technological hegemony captures how the design, development, or manner of use of educational technologies can negatively impact stakeholders. As an instance, Edwards (2022) points out that educational technologies authorized by universities can unintentionally lead to the exclusion of students with disabilities.

Economic hegemony largely foregrounds the notorious “digital divide,” indicating that disparities in financial access to hardware, software, and training can perpetuate unequal participation in e-learning contexts. Ortega (2017) divulges that such disparities have been steadily on the increase over the years, and calls upon CALL and Second Language Acquisition (SLA) researchers to pay closer attention to this issue.

Educational hegemonies emerge when prevailing pedagogical or institutional norms or policies unjustifiably impact online educational practices. Khosravi et al. (2024) describe how the teachers of a popular Iranian language institute felt that inadequate institutional policies were partly to blame for the difficulties they had encountered with their online courses during the pandemic.

Sociocultural hegemony denotes the dominance of a specific set of social norms, aesthetics, and values within digital platforms and content, resulting in cultural misrepresentation or erasure. For example, in a study aimed at assessing ChatGPT’s intercultural competence with regard to Chinese as a Foreign Language, Wang (2024) demonstrated that having been trained based on the values of its creators, ChatGPT is not always successful in recognizing nuances unique to Chinese culture.

Finally, *sociopolitical hegemony* signifies the manner in which political structures or figures manipulate or jeopardize e-learning opportunities through, for example, creating or financing biased e-learning materials; or through restricting access, visibility, and digital citizenship for learners and educators in marginalized regions. Multiple examples of the latter can be found with regard to Palestine in Traxler (2023), and concerning Iran in Marandi (2023a). An example of the former can be found in Soleimanifard et al. (2021), where the authors reveal that the state-funded *Voice of America (VoA) Learning English* employs in-group favoritism and out-group derogation to subtly promote North American values through presenting “world news.” Similarly, Karimi Alavijeh’s (2014) doctoral dissertation explores four popular online English learning platforms (i.e., VoA, EnglishCentral, Englishtips, and BBC Learning English), and illustrates how they promote electronic colonialism by misrepresenting Iran under the guise of teaching English.

To conclude, decolonizing technology assisted language learning is an important issue which has so far received very little attention. I would argue that this is, in part, due to discourses around educational justice being often hijacked—colonized if you will, by very specific, popularized, and sanitized narratives. Perhaps one can say that all forms of educational justice are equal, but some forms are more equal than others. But that is a story for another day.

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The Impacts of a Pandemic on Language Teacher Identity, Beliefs, and Practices in Japan

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Abstract

The COVID-19 pandemic had far-reaching effects on how language education was conducted, as well as on the beliefs, practices, emotions, well-being, and identities of those who taught. Research shows that teaching during this time caused teachers to reconstruct or reassess their identity (Zhang & Hwang, 2023); saw teachers exercising their agency according to their teacher identity (Ashton, 2022); led to changes in teachers' beliefs and practices (El-Soussi, 2022); and restricted teachers' access to other educators (Nagamine, 2023; Zhang & Hwang, 2023). This study shares results from government-funded research exploring how the pandemic influenced the identity, beliefs, practices, emotions, well-being, and professional development of language educators in Japan. Narrative inquiry, a methodology which reveals lived experiences within rich, story-filled data, was used to analyze both survey responses and interview transcripts to identify emergent themes. Looking at the content (what the stories are about), the form (the way they are organized and structured), and the context (looking at the events experienced, the storytelling, or a combination of both) allowed for deeper data analysis and greater appreciation of educators' stories and experiences (Barkhuizen, 2023; Barkhuizen et al., 2014). Results suggest that educators felt various emotions during the pandemic, some positive and others quite the opposite. Even if they did not recognize it themselves, the effect of the pandemic on teachers' identities was substantial. Teachers' beliefs and practices were significantly

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impacted, particularly in how they embraced technology, navigated personal well-being, and took student welfare into greater consideration. Some pursued more professional development during the pandemic, while others withdrew completely from seeking it out, sometimes for the same reasons. Whether teachers moved online or not, they were challenged to adapt their teaching practices and provide adequate, if not quality, learning experiences for their students.

The COVID-19 pandemic brought about many changes in culture and society. Language education is no exception, with it influencing how languages are taught and impacting the beliefs, practices, emotions, well-being, and identities of educators. It would be a loss for the field if lessons from this period were not used to improve language education. This study draws on van Lier's (2004) ecological perspective as a theoretical framework to identify what was learned during this time and highlight innovations that emerged, as it best acknowledges the nuanced variables of teaching during the pandemic.

Teaching a second language is an emotional experience; thus, emotions must hold a "prominent place on our agendas" (MacIntyre & Gregersen, 2012, pp. 112–113). Emotions also shape how teachers interpret and respond to changes in their workplace (Nagamine, 2018; Reio, 2005; 2011). The understanding of well-being is also a subjective experience. Responses to similar situations, such as the COVID-19 pandemic, can vary because, under such circumstances, each person may respond differently and experience different levels of stress and other emotions (Mercer, 2021).

Definitions of language teacher professional development (PD) vary, but most include continual, long-term enhancement of professional skills. Diaz-Maggioli says it helps "teachers feel more refreshed and inspired in their teaching knowledge and practice, while students benefit from better teaching, leading to better learning" (Longfield, 2018, para. 2). Effective PD must be tailored to specific contexts and needs (Diaz-Maggioli, 2004; Guskey, 2003; JCCE, 2005; Kinugawa & Tachi, 2003). This means guidance from schools was crucial for teachers during the pandemic. In its absence, the Japanese context and its academic community could also be of support to educators.

Research documenting the pandemic's impact indicates both positive and negative impacts on teachers. The experience led many educators to alter or reassess identities (Zhang & Hwang, 2021; 2023) as well as exercise their agency accordingly (Ashton, 2022). The pandemic also altered teachers' beliefs and practices (El-Soussi, 2022) while severely restricting teachers' access to their professional communities (Nagamine, 2023; Zhang & Hwang, 2023).

Rationale

In 2022, the authors applied for a government grant to research the impact of the pandemic on education in Japan, starting from the 2023 academic year (which begins in April).

At that time, findings from studies on the pandemic's impact were just beginning to emerge, with very little on the Japanese educational context published in English. What little existed seemed heavily focused on the university context (Nagamine, 2023; Zhang & Hwang, 2021). In an attempt to further research the pandemic's influence on education, with particular focus on the Japanese context, this study sought to answer the following questions:

1. How has teaching before, during, and after the pandemic in Japan impacted language teachers' identities?
2. How has teaching before, during, and after the pandemic in Japan impacted teachers' beliefs and practices?
3. How has teaching before, during, and after the pandemic in Japan impacted language teachers' emotions and well-being?
4. What types of professional development have language teachers participated in before, during, and after the pandemic, and for what purposes?
5. What lessons can we take from the findings to provide more effective teacher and professional development opportunities in the future?

Methodology

This qualitative study was conducted in two parts: a survey and semi-structured interviews. The bilingual Google Form-based survey was shared online with Japan-based language teachers from February to April 2024. It contained demographic questions and narrative frames focused on teaching prior to, during, and after the pandemic. 18 people completed the questionnaire. That autumn, a call for interview participants was shared online, and 37 people expressed interest.

Narrative Frames

Barkhuizen (2011) defines a narrative frame as:

A written story template consisting of a series of incomplete sentences and blank spaces of varying lengths. It is structured as a story in skeletal form. The aim is for participants to produce a coherent story by filling in the spaces according to their own experiences and their reflections on these (p. 402).

These frames (see Appendix 1) guided participants chronologically, ensuring that they would answer the research questions while retaining freedom of self-expression. They guaranteed stories rich in detail (Barkhuizen, 2011).

Analysis

Narrative inquiry and thematic analysis were used to analyze both sets of data. Doing so allowed emergent themes to be identified alongside pre-determined ones. Looking at what the participant spoke about (content), how the stories were organized (form), the events experienced, and the style of storytelling (context) made a greater appreciation of the stories possible (Barkhuizen, 2023; Barkhuizen et al., 2013).

Representative Results

Survey Participants

There were 18 survey respondents, 11 identifying as women and seven as men. We hoped for a diversity of responses; however, the tertiary level was overwhelmingly represented. Sixteen participants taught at universities, one at junior high, two at elementary school, one at *eikaiwa* (conversation school), and two taught private lessons. Fourteen participants were employed full-time during the pandemic, three part-time, and one taught both. All but two teachers had taught for 16 years or more.

Interview Participants

Twenty participants were randomly selected to participate in semi-structured interviews (see Appendix 2). Although selection was random, priority was given to educators from settings underrepresented in survey responses, especially those unaffiliated with universities. Of those invited, only 17 participated: eight women, eight men, and one non-binary person. Their teaching backgrounds were also diverse, from children to adults. Participants worked part-time, full-time, or a combination of the two. University participants mainly taught online throughout the pandemic, whereas the teachers of younger learners taught predominantly face-to-face. Regarding experience, all participants were mid- to late-career.

Findings

Unsurprisingly, results suggest that educators had mixed experiences and emotions during the pandemic. For some, it was a time of calm, bonding with family or establishing new routines. Others experienced anxiety, overwhelming stress, and even financial insecurity. Even when they did not recognize it themselves,

the pandemic's impact on teachers' identities was substantial. Teachers' beliefs and practices were significantly impacted, particularly in how they embraced technology, navigated personal well-being, and took student welfare into greater consideration. Those familiar with technology were generally more comfortable with the necessary adaptations, though most rose to the challenge. The context in which teachers taught and their position within it (e.g. part-time, full-time, leadership role, regular teacher) seemed to influence their level of teacher agency and how much guidance they were given. The survey, with more university educators, indicated more of a move online, the interviews, with a more balanced representation at primary, secondary, and tertiary levels, revealed more of a mix between online, hybrid, and face-to-face. Whether teachers moved online or not, they adapted their teaching practices and provided adequate, if not quality, learning experiences for their students. Post-pandemic, closer attention to mental health for both themselves and students stands as a major change in the practice of many educators. Some pursued more PD during the pandemic, while others withdrew completely from seeking it out, sometimes for the same reasons. Furthermore, those with language ability or technology training frequently became the ones responsible for providing PD to others.

Conclusion

The pandemic accelerated change, though inconsistently, across the Japanese education system. Unfortunately, while some innovations were embraced, other practices have reverted back. Nevertheless, it spotlighted the realities that educators and students faced. The education system demanded much of its teachers and, at times, set unrealistic expectations. The pandemic's additional stressors made ignoring limitations impossible. The cognitive load of teaching online limited the amount of content covered and the technology learning curve frequently overwhelmed both students and teachers. The stress of being isolated was an additional burden. For many, this experience culminated in a more holistic acceptance of students and better discernment about their own well-being. Moving forward, those in charge of making policies and the institutions that implement them would serve both students and instructors well by being more sensitive to and accommodating of well-being while being realistic in what they ask of teachers vis-à-vis the support they are willing to provide.

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Appendix 1

Survey Question & Narrative Frames

1. How long have you been in the English teaching profession? 英語教師になって何年になりますか？
 0–5 years 0年–5年, 6–10 years 6年–10年, 11–15 years 11年–15年, 16–20 years 16年–20年, 21–25 years 21年–25年, 26–30 years 26年–30年, 31–35 years 31年–35年, 36–40 years 36年–40年, 41+ years 41年+
2. How long have you been teaching in Japan? いつから日本で教えているのですか？
 0–5 years 0年–5年, 6–10 years 6年–10年, 11–15 years 11年–15年, 16–20 years 16年–20年, 21–25 years 21年–25年, 26–30 years 26年–30年, 31–35 years 31年–35年, 36–40 years 36年–40年, 41+ years 41年+
3. If you've taught elsewhere, where and for how long? 日本以外で教えていたことがあるなら、どこで、どれくらいの期間教えていたのですか？
4. What level do you teach at? (ex. primary school, university, cram school, eikaiwa) どのレベルで教えているのですか？(例：小学校、大学、塾、英会話)
5. During the pandemic, how were you employed as a teacher? COVID-19 パンデミックの最中、あなたは教師としてどのように働いていましたか？
 full-time 常勤・正社員, part-time 非常勤・パート, Other その他
6. How are you currently employed as a teacher? 現在、教師としてどのように働いていますか？
 full-time 常勤・正社員, part-time 非常勤・パート, Other その他
7. How do you identify? (e.g. man, woman, non-binary, prefer to self-describe) あなたはどのようなジェンダー・アイデンティティ？(例：男性、女性、ノンバイナリー、自己申告を希望する)

Narrative Frames - Before COVID-19

Before COVID-19, in terms of teaching beliefs, I thought _____ was/were important. I thought this because _____. Teaching my lessons made me feel _____. I often taught lessons using a _____ approach. I like this teaching method because _____. Technology played a _____ role in my classroom. Personally, the way I used technology in my classroom was _____. My students used technology in the classroom _____ because _____. One way I engaged in professional development before the pandemic was _____. I found this useful for my development because it (+ verb) _____.	COVID以前は、指導信念の観点から、私は〇〇が重要だと考えていた。その理由は〇〇。レッスンをしていると、〇〇な気分になった。私はよく〇〇のアプローチでレッスンをした。私がこの教授法を気に入っているのは、〇〇だからだ。テクノロジーは私の教室で〇〇役割を果たした。個人的に、私が教室でテクノロジーを使う方法は〇〇だった。私の生徒が教室でテクノロジーを〇〇（頻度）使ったのは〇〇（理由）からです。パンデミックの前に私がプロフェッショナル・デベロップメントに取り組んだ方法のひとつは〇〇だった。その方法を活用して何が得られましたか？
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Narrative Frames - During COVID-19

Teaching my lessons during the pandemic made me feel _____. I did/did not switch to Emergency Remote Teaching (ERT). This is because _____. At that time, in terms of teaching beliefs, I thought _____ was/were important. It was/They were important because _____. An adaptation I made to my teaching practices during the pandemic was _____. One way I engaged in professional development that I stopped doing during the pandemic is _____. I stopped because _____. One professional development event/activity I engaged in was _____. This made me feel _____. I felt this way because _____.	私はCOVID-19 パンデミック時にレッスンを教えしていた時に〇〇を感じた。緊急遠隔指導(ERT)に切り替えた / 切り替えなかった。その理由は〇〇。当時、指導信念の観点から、私は〇〇が重要だと考えていた。重要だったのは〇〇からだ。Covid-19パンデミック時に私が行った教育方法の変更は、〇〇であった。COVID-19パンデミック時にやめてしまったプロフェッショナルデベロップメントの方法のひとつは〇〇だ。辞めた理由は〇〇だ。私が参加したプロフェッショナル・デベロップメントイベント / 活動のひとつは、〇〇だった。それは私を〇〇に感じさせた。私はこう感じた理由は～だ。
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Narrative Frames - After COVID-19

When I look back on my teaching during the pandemic, I feel _____. Something that I started doing in my classes during the pandemic that I have continued to this day is _____. Something I stopped doing once the pandemic ended was _____. I feel that my teaching beliefs _____ changed post-pandemic.

This is because _____. I feel that my teaching practices _____ changed post-pandemic. This is because _____. One change to professional development that happened as a result of the pandemic, which I want to continue, is _____. One change in teaching or professional development that happened as a result of the pandemic that I would not continue is _____. I wouldn't do it now because _____.

パンデミック時の指導や教え方を振り返ると、私は〇〇と感じる。COVID-19パンデミック最中に私が授業で始めたことで、今日まで続けていることは〇〇だ。COVID-19パンデミックが終わってから私がやめたことは、〇〇だった。私の指導信念は、パンデミック後は〇〇と感じている。その理由は〇〇。私の指導法は、パンデミック後は〇〇と感じている。その理由は〇〇。COVID-19パンデミックを契機としたプロフェッショナル・デベロップメントの変化で、私が今後も継続させたいと考えているもののひとつに、〇〇がある。COVID-19パンデミックを契機としたプロフェッショナル・デベロップメントの変化で、私が今後も継続しないと思うもののひとつは、〇〇だ。継続しない理由は〇〇だ。

Appendix B

Semi-Structured Interview Questions

面接の質問 (Interview Questions)

Demographic Questions

1. How do you identify in terms of nationality? あなたはどこの国で生まれ育ちましたか？
2. How do you identify in terms of gender? あなたの性自認を教えてください。
3. How long have you been in the English teaching profession? 英語教師になって何年になりますか？
4. How long have you been teaching in Japan? いつから日本で教えているのですか？
5. What level do you teach at? (ex. primary school, university, cram school, eikaiwa) どのレベルで教えているのですか？(例：小学校、大学、塾、英会話)

Beliefs and Practices

1. What was a typical lesson for you before the pandemic? パンデミック以前の通常のレッスンはどのようなものでしたか？
2. Could you tell us what a typical lesson was like for you during the pandemic? パンデミック時の通常のレッスンはどのようなものでしたか？ (1)(3)
3. Could you tell us what your lessons are like now? 現在のレッスンについて教えてください。
4. How interested/engaged were you in your lessons?
 - a. How do you think the pandemic affected your level of engagement in planning?
 - b. How do you think the pandemic affected your level of engagement in teaching?
 - c. How do you think the pandemic affected your students' level of engagement in lessons?
5. Engagement: degree of attention, curiosity, interest, passion, & optimism-extends to motivation?
 - a. Behavioural, emotional, and cognitive (NAIS)

Identity, emotions, and well-being

1. How did the experience of being a teacher or teaching during the pandemic affect you? 教師として、あるいはパンデミック中に教えるという経験は、あなたにどのような影響を与えましたか？
2. How, if at all, did you feel you changed as a teacher during the pandemic? Post-pandemic? パンデミック中、教師としてどのように変わったと感じましたか？パンデミック後は？
3. How did you feel teaching before the pandemic? During the pandemic? After it? パンデミック以前はどのように教えていましたか？パンデミック中は？パンデミックの後は？
4. Who did you talk to about your experiences as an educator before, during, or after the pandemic? パンデミックの前、最中、あるいは後に、教育者としての経験について誰に話をしましたか？

Professional Development

1. How did you engage in professional development before the pandemic? パンデミック以前は、どのように専門家としての能力開発に取り組んでいましたか？
2. What were you most worried about in terms of PD during the pandemic? パンデミック中、PDに関して最も心配していたことは何ですか？
3. How did you engage in professional development during the pandemic? パンデミックの最中、どのようにPDに取り組みましたか？
4. Have you continued any PD you were engaging in during the pandemic? パンデミック中に取り組んでいたPDは継続しましたか？
5. What types of PD, if any, are you currently engaging in? 現在携わっているPDがあれば、どのようなものですか？

From Masking to Meaning: A Sociolinguistic Model of Gendered Pragmatics in Autistic Women's Communication

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Abstract

Autistic women frequently engage in pragmatic adaptation to align with gendered communicative norms. This paper frames camouflaging as anticipatory pragmatic labour: the pre-emptive modulation of language across cognitive, pragmatic, and social levels. A Three-Tier Sociolinguistic Model is proposed to capture this process. Drawing on interviews, naturalistic recordings, and culturally adapted inference tasks in the UK and China, preliminary findings reveal consistent use of hedging, prosodic mimicry, and affective suppression. These behaviours reflect internalised norms and socio-discursive pressures. The study reframes camouflaging as an effortful, norm-responsive practice shaped by gender, neurotype, and culture.

Keywords: autism, gendered language, pragmatic adaptation, camouflaging, cross-cultural sociolinguistics, identity negotiation

Introduction

Autistic women are underrepresented in diagnostic and sociolinguistic literature—not due to a lack of communicative difference, but because their adaptations often render that difference invisible. Recent work in gendered neurodiversity critiques dominant models of communication that privilege emotional clarity, deference, and relational attunement—norms typically associated with femininity (Bargiela et al., 2016; Hull et al., 2020).

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These expectations obscure how autistic women strategically reshape their discourse to meet implicit social demands.

This paper introduces gendered pragmatic misalignment: a structural disconnect between autistic communicative styles and prevailing norms of gendered interaction. In response, many women adopt camouflaging strategies such as hedging, affective suppression, and prosodic mimicry to avoid misreading or exclusion.

To explain this adaptation, I propose a Three-Tier Sociolinguistic Model. At the cognitive level, speakers assess social risk; at the pragmatic level, they adjust language in real time; and at the social level, they conform to normative discourse conventions. Rather than a marker of deficit, camouflaging is reframed here as skilled, anticipatory labour shaped by gendered and neurotypical interactional asymmetries.

Methodology

This qualitative, cross-cultural study examines how autistic women in the United Kingdom and China negotiate social acceptability through pragmatic adaptation. Twenty participants (aged 21–35 years), each formally diagnosed within the past five years, were recruited from urban, highly educated populations to reduce background variability.

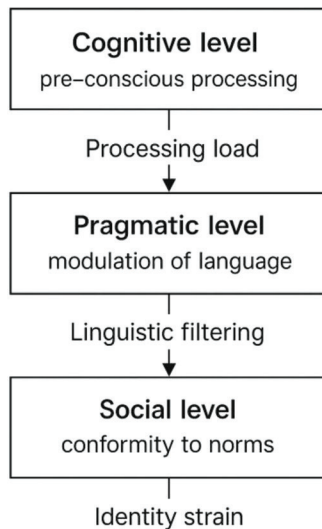


Figure 1. Three-Tier sociolinguistic model

Data collection integrates multiple modalities to capture camouflaging across reflexive and interactional domains. Participants completed three rounds of semi-structured interviews over six weeks, exploring emotional disclosure, communicative discomfort, and metapragmatic awareness. Each participant also contributed approximately two hours of naturalistic audio from everyday conversations in domestic, professional, and peer settings. In parallel, a curated corpus of publicly available posts authored by autistic women was assembled to examine pragmatic performance in digital self-representation.

To assess online processing, participants undertook brief EEG and eye-tracking tasks before and after the interviews. These culturally adapted scenarios involved resolving emotionally ambiguous or pragmatically indeterminate utterances. The design aims to detect whether extended self-reflection influences inference sensitivity under social ambiguity.

This study has received approval from the relevant institutional ethics board. All procedures involving human participants will be conducted in accordance with formal approval. Data collection will commence only upon institutional clearance. Analytical procedures include thematic coding (NVivo), discourse and conversation analysis, and cross-cultural matrix comparison. Drawing on pragmatic sociolinguistics and gender performativity (Butler, 2004), the study conceptualizes camouflaging as socially responsive linguistic labour, not as communicative deficit.

Preliminary Results

Initial analysis of interviews and public texts reveals a consistent pattern of anticipatory pragmatic filtering. Participants describe actively monitoring how their speech may be received, particularly in emotionally ambiguous or socially delicate contexts. Common strategies include hedging—through mitigators like “maybe” and “I suppose”—to soften epistemic stance and avoid assertiveness. Emotional disclosures are frequently postponed until interactional conditions permit.

These behaviours exemplify the Pragmatic Tier of the proposed model, wherein real-time adjustments reflect internalized gendered norms of appropriateness and relational harmony. Topic-shifting is also employed to maintain affiliative tone, especially when addressing disagreement or discomfort.

As one Chinese participant explained: “I write like the others in the group so I won’t be seen as rude. Even if I don’t feel that way, I change my tone.” Her comment illustrates mimetic alignment—adopting prosody, discourse markers, or affective cues associated with neurotypical peers.

Together, these observations suggest that camouflaging is not mere suppression but a skilled repertoire of norm-oriented linguistic strategies.

Discussion

This analysis suggests that camouflaging in autistic women is not passive concealment but cognitively effortful sociolinguistic negotiation. The proposed Three-Tier Sociolinguistic Model frames pragmatic adaptation as layered linguistic labour shaped by gendered and cultural norms of legibility, propriety, and affective restraint.

Drawing on interactional pragmatics (Levinson, 1983), gender performativity (Butler, 2004), and neurodiversity studies (Koi, 2021), the model conceptualises camouflaging as a stylised, adaptive response rather than a communicative deficit.

The findings have broader applications. In conversational AI, systems must better interpret mitigated or indirect cues common among neurodivergent users. In education, camouflaging-aware pedagogy can support students whose communicative labour remains unseen. Clinically, the model offers a tool for identifying masked autism, especially in women whose speech superficially conforms to neurotypical norms.

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Multilingualism and Language Identity Development in Study Abroad Higher Education Contexts

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Introduction

Increasing global mobility and the internationalization of higher education have led to greater attention on multilingualism and language identity among international students (e.g., Diao, 2016; Levine & Garland, 2015; Trentman, 2013). Study abroad (SA) settings, in particular, present rich linguistic and sociocultural environments in which students navigate unfamiliar language ecologies and renegotiate their identities (Aveni, 2005). Students often engage in complex multilingual practices shaped by English as a lingua franca (ELF), English-medium instruction (EMI), and contact with local languages. These dynamics influence not only their language use but also their evolving linguistic selves and sense of belonging (Benson et al., 2013).

Despite growing scholarly interest, research on multilingual identity in SA contexts remains fragmented, spanning diverse theoretical frameworks and methodological approaches (Fisher et al., 2018). This paper presents findings from a scoping review with thematic synthesis of empirical studies published between 2010 and 2025. It aims to explore the key factors that shape multilingual identity in SA contexts and identify recurring outcomes of such identity development. This synthesis lays the groundwork for a broader theoretical understanding of how students' identities shift through their SA experiences.

Methodology

The review followed a structured search process using three databases: Scopus, Web of Knowledge, and ERIC. The search, conducted in January 2025, targeted studies published between 2010 and 2025 that focused on

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multilingualism and language identity among international students in higher education SA contexts. The screening process was documented with reference to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (hereafter PRISMA) framework (Moher et al., 2009), to transparently present the search and selection procedures for this smaller scale scoping review. 19 empirical articles were selected for thematic synthesis. The majority of studies adopted qualitative or mixed methods, with a strong emphasis on longitudinal interviews, narrative inquiry, and reflective journals. This methodological trend underscores the need to capture identity development as a personal and contextually embedded process.

To analyze the selected studies, I adopted a thematic synthesis approach inspired by Braun and Clarke (2006, 2022), which focuses not only on identifying recurring patterns but also on interpreting their broader meanings and implications. The process involved close and iterative reading of each article to become thoroughly familiar with the data. Key findings and recurring concepts were noted and grouped into initial categories. These categories were further refined into sub-themes and then clustered under broader overarching themes, allowing for a layered and coherent understanding of the field. Throughout the process, analytical reflections and comparisons were used to ensure that the emerging themes remained relevant to the research focus and accurately captured the diversity of findings.

Key Findings

Thematic analysis revealed two primary dimensions of multilingual identity development in SA contexts: (1) factors influencing identity negotiation; and (2) identity (re)constructions as outcomes of the SA experience.

Factors Shaping Multilingual Identity

SA multilingual identity is co-constructed through the dynamic interplay between structural factors and individual agency. Structural factors include sociolinguistic contexts, language ideologies, institutional EMI policies, and peer interactions (e.g. Maeder-Qian, 2017, 2018; Trenchs-Parera & Pastena, 2024). For instance, Sung (2024b) highlights how diverse language ideologies shape the student's identity negotiation and language use, including beliefs about the connections between language and ethnicity; the association of English proficiency with local or non-local student status, and the hierarchical valuation of different English varieties.

At the same time, students exercise individual agency in shaping their identities (e.g. Banerjee & Manning, 2024; Jin & O'Regan, 2024; Sung, 2023; Teng &

Bui, 2020). Some adopted new linguistic selves through ELF communication, constructing legitimate user identities despite their L2 speaker status (Sung, 2023). Motivation, investment, and emotional responses to inclusion or exclusion critically influence how they position themselves linguistically (e.g., Hajar & Mhamed, 2024; Mocanu & Llurda, 2024; Teng et al., 2024). For example, Teng and Bui's study (2020) explores how Thai students studying abroad in China navigate the complex linguistic and cultural challenges through the projected selves to agentively redefine their position and seek inclusion within the university community.

Identity Reconstructions as Outcomes

Students' SA experiences often lead to transformations in their linguistic selves, language proficiency, and broader personal growth (Benson et al., 2013; Hajar & Mhamed, 2024; Sung, 2024a). Rather than automatically fostering positive change, the outcomes of SA hinge on students' engagement with new sociocultural environments (Jackson, 2008; Gu et al., 2010). Studies show that students' affiliations with different languages shift in context-dependent ways. For instance, Reynolds et al. (2024) and Maeder-Qian (2018) highlight how students' investment in languages like English or Mandarin often reflects perceived social value and future utility, while cultural heritage and peer dynamics influence which identities are prioritized. These findings underscore the complex and negotiated nature of multilingual identity development, shaped by both internal self-perception and external sociolinguistic positioning.

Discussion and Implications

The reviewed studies demonstrate that multilingual identity development in SA is a dynamic and situated process, shaped by the convergence of macro-level language regimes and micro-level agency. Structural factors can enable or constrain students' multilingual identity development, while students' own motivations and resilience shape their responses. As a preliminary scoping review, these findings are exploratory, and the insights carry tentative implications for policy and pedagogy. Institutions are suggested to move beyond monolingual assumptions and recognize multilingual legitimacy. This could include valuing ELF communication, supporting inclusive EMI practices, and encouraging engagement with local languages. Future research could value longitudinal, multi-site designs to better capture how multilingual identities evolve before, during, and after SA, especially in relation to global English and intercultural adaptation.

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Insights into an Action Research for Pre-service Teachers Engaged into Social Action with Two Underrepresented Communities

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Web2Learn

Background

In today's complex socio-environmental context, universities are increasingly expected to equip future professionals—especially pre-service teachers—with the skills to become catalysts of citizen engagement and empowerment in society. Thus, one approach is to distil real-life learning opportunities in university curricula, fostering social awareness and responsibility. This study explores two social actions with pre-service teachers at two Greek universities. The aim was twofold: first, active engagement (*savoir s'engager*) in culturally and linguistically diverse contexts. Second, development of skills for socially engaged citizenship and community-driven agency. The paper discusses results of pre- and post-implementation surveys of pre-service teachers engaged in social actions, in a qualitative, interpretative framework valorising users' perceptions of the experience.

Scope, Framework, and Methodology

The paper presents action research (Burns, 2010) to deploy a teacher education intervention to foster agency and professional identity through real-life situations for pre-service teachers (Barrett & Liu, 2020).

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Theoretical Framework

This study is grounded in scholarship on pre-service teacher education, with a focus on how real-life, socially oriented experiences shape professional development. It draws on literature that highlights the importance of experiential learning and engagement with authentic challenges in preparing socially responsive educators (author 1 & author 2, 2025). Thus, the study adopts the concept of “social action” that refers to “the proactive engagement in efforts aimed at reshaping and improving various facets of society” (BOLD consortium).

Hence, reflective and action-based practices (Yuan & Lee, 2022; [author 1], Potolia, & Zourou, 2017) are central to this process, enabling pre-service teachers to face real-world challenges and articulate their professional roles. This perspective shows how action and technology-enhanced practice are central to socially engaged educators.

Methodology

From March to May 2025, two social actions with two different cohorts of Greek pre-service teachers have been deployed. The study adopts qualitative thematic analysis (Braun & Clarke, 2006) of replies to two questionnaires provided by pre-service teachers who participated in the two social actions, at pre- and post-implementation stages. A total of 42 replies (23 pre- and 19 post-implementation) from questionnaires were analysed. A pre-survey has been distributed (LINK) two weeks before the launch of the actions, and a post-survey two weeks after completion (LINK).

Results

The BOLD Social Action in Athens

Thirteen students from [anonymised Faculty, University A] worked together with 18 post-secondary students of migrant and refugee backgrounds in four face-to-face workshops. Working in mixed groups, they co-created a comic booklet addressing social themes relevant to the lived experiences of these marginalised communities.

The BOLD Social Action in Thessaloniki

Eight students from [anonymised Faculty, University B] and seven Deaf adults took part in four workshops to raise awareness about equal access to health-care. They co-created scenarios and scripts, resulting in three short videos.

Discussion

This section presents a thematic analysis focused on two dimensions: #1: skills (and the upskilling potential for the teachers), and #2: attitudes, linked to active citizenship.

Dimension #1: Skills (and Upskilling Potential)

Pre-implementation

Regarding the question “Which teaching skills do you expect to develop thanks to the action?” of the pre-implementation survey, the thematic analysis brings to the fore 3 major skills: communication, leadership and organisation (Table 1). This expectation is grounded in the challenges pre-service teachers anticipated, such as communicating with Deaf adults, leading intercultural groups, or organising team presentations.

Post-implementation

Interestingly, following the social actions, pre-service teachers offered a more nuanced understanding of the teaching skills they had developed. First, the majority linked their communication skills to a heightened awareness of inclusion and accessibility. Second, they moved beyond generic notions of leadership, investing effort into adapting to their context. They also linked organisational skills to professional competencies. Thus, a shift emerged from general to context-specific skill development.

Dimension #2: Attitudes (to Active Citizenship)

Pre-implementation

Moreover, the study aims to explore the degree to which participation in the social actions influenced active citizenship attitudes of pre-service teachers, namely the importance of social action: a) for future educators, b) for university

Table 1. Pre vs post-implementation teaching skills developed through social action

Pre-implementation skills	Post-implementation skills
Communication	Communication & Inclusivity
Leadership	Creativity & Adaptability
Organisation	Organisation & Professional skills

studies, and c) for cross-sectoral collaboration. Respondents provided a 5-scale rating in each item (1 = not important at all, 5 = extremely important).

At the beginning, 96% of pre-service teachers rated social action as “extremely important” for them as future educators, manifesting an enhanced perception of the value of their engagement as future educators. On the other hand, cross-sectoral collaboration received a broader distribution of ratings that can be justified as their university studies’ trajectory involved very limited or no kind of multistakeholder collaboration before.

Post-implementation

Although positive attitudes towards social action remained solid in the post-implementation stage, a slight diversification is observed (see Figure 1 below). Specifically, ratings shifted from “5” towards “4”, while collaboration with non-academic stakeholders scored “3”.

This visible alteration can be justified following a two-factor analysis:

- a) personal experiences throughout the social actions; and
- b) the degree of familiarisation of pre-service teachers with the concept of social action, thus leading to a more reflective stand towards it.

Conclusions

This paper demonstrates that engaging pre-service teachers in social action fosters both skill development and reflective attitudes towards active citizenship. By situating learning in culturally and linguistically diverse contexts, the actions embodied the first guiding principle of *savoir s’engager*.

At the same time, the collaborative design and implementation nurtured the second principle, namely skills for socially engaged citizenship and



Figure 1. Pre- and post-implementation attitudes of pre-service teachers engaged in social action

community-driven agency. These outcomes suggest that real-life experiences can bridge teacher education with citizen engagement. Though limited in scale, the findings highlight the potential of such initiatives to prepare inclusive and socially responsible educators.

Limitations and Biases

As a qualitative study, the findings are not generalisable but offer context-specific insights into action-oriented research and reflective practice. Two limitations are noted: the unmatched participant responses between pre- and post-stages due to anonymity, and the variation in the social actions, which may have influenced how attitudes and skills were perceived.

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