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Digital Tribes: An Ethnographic Study of English Learning in Virtual Reality Gaming Communities

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Abstract

This study investigates informal English as a Foreign Language (EFL) learning in immersive virtual reality (VR) environments, focusing on play-based interactions within a community of DVVerb users in VRChat. The research aims to examine how language development, identity formation, and peer interaction emerge in unstructured virtual spaces. Employing a qualitative virtual ethnography approach, data were collected through 90 hours of participatory observation, twelve semi-structured voice interviews, and multimodal artifact analysis. Findings indicate that VRChat serves as an affinity space that promotes meaningful, self-directed English practice beyond formal instruction. Participants reported improvements in speaking fluency, pragmatic competence, and sociocultural awareness through game-based tasks, role-play with avatars, and peer scaffolding. Avatars and spatial cues reduced speaking anxiety and encouraged risk-taking, while regular social rituals, such as storytelling nights and team quests, provided continuous language opportunities and peer feedback. Challenges included ineffective language use, potential disruptions, technological limitations, and reliance on learner motivation. The study concludes that VR environments offer rich, immersive contexts for informal EFL learning, supporting autonomous, socially mediated, and experiential development. These findings have practical and theoretical implications for digital language education, demonstrating that virtual "digital tribes" can foster community-based learning and complement traditional classroom instruction.

Keywords: digital ethnography, English language, immersive interaction, informal learning, virtual reality

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INTRODUCTION

Recent empirical evidence from reputable SINTA-indexed and Scopus-indexed academic journals, evidence that the application of immersive VR technology has impressive effects on EFL education. Specifically, in the journal Smart Learning Environments, indicated that weekly immersive virtual environments public speaking sessions lowered speaking anxiety considerably among intermediate EFL pupils when

comparing to traditional video call practice (Ozgun & Sadık, 2023). In contrast, a meta-analysis of studies accessed by Scopus conducted by Chen et al. (2022) revealed 21 quantitative studies regarding the instructional efficacy of VR use in language study had moderate - to - large effect sizes with Hedges' gs for linguistic skill ($g = 0.66$) and motivation and affective outcomes ($g = 0.57$). Positive language learning outcomes included higher speak fluency scores, increased vocabulary retention, and improved student engagement.

Although these results are encouraging, most of the literature currently in publication focusses on metrics of individual language proficiency, such as attitudes and vocabulary retention, and frequently ignores the social and cultural uses of language, particularly in contexts where virtual reality is linked to game worlds, which seem to offer areas for social interaction, shared rituals, and engagement with changing identities. The Indonesian context offers a unique opportunity: the majority of Indonesian EFL learners participate in "Extracurricular English" (EE), which is voluntary engagement with English outside of the classroom through digital platforms like social media, streaming media, and online games. Through EE, learners gain more vocabulary, learn autonomy, have direct experience with the language, and have new opportunities to become pragmatically competent in English (Dirwan et al., 2025). More specifically, research among Indonesian high school students who were gamers showed that frequent engagement in extracurricular games had a positive effect on their pragmatic competence, as evidenced by higher scores on speech act tasks compared to their non-gamer peers .

This highlights an important insight: Extracurricular English (EE) activities that are intrinsically driven and situated in affinity spaces can promote sociolinguistic and pragmatic development, in addition to cognitive gains. Communities built around shared interests, such as games, can be rich environments for informal self-directed learning, with support from peers and social norms, in accordance with the affinity space theory proposed by Scholz (2017). This dynamic is often reflected in emerging virtual worlds, which allow students to collaboratively negotiate identities, language resources and cultural norms outside the confines of organized classroom settings.

To be clear, virtual reality gaming environments are effective learning environments, where sociocultural and linguistic affordances come together. In lieu of common sociocultural signifiers, coherent communities, or "digital tribes," form with users who share interests and experience in a particular culture. Avatars and in-game behaviors allow users to situate themselves socially and linguistically with the potential to experientially negotiate notions of identity. Of course, affordances and constraints associated with these virtual spaces, including game mechanics, voice and chat, community customs and standards, and ideas of power and authority impact the production in language (Nuesser et al., 2024). An integrative review of 69 research articles on virtual reality in language education highlighted understanding the semiotic–cultural mediation of virtual environments, stating that VR "meditates learners' acquisition of a second language" via "elaborate and complex" semiotic dealings with digital signs and cultural objects (Zheng et al., 2023).

Virtual reality tours, project-based language practice, and the use of embodied AI agents (e.g., ELLMA T) comprise specific case studies that explore the formal Employment of virtual reality for language acquisition learning; these initiatives are often still driven by pedagogical design rather than user interaction (Figueroa & Jung, 2025). Although these models - which often reside in higher education and workplace training - provide compelling examples of user attitudes and cognitive processes, they do limited in understanding the natural emergence of language in unstructured, game-oriented virtual communities.

In contrast, an ethnographic approach that focuses on the unmediated world of VR games can provide an in-depth comprehension of the linguistic, societal, and cultural contours of incidental language acquisition. Virtual ethnography, which adapts traditional anthropological methods to online spaces, allows researchers to observe interaction patterns, forms of community cohesion, and rituals of language use within virtual worlds (Yeh et al., 2022). This approach recognizes that learning is not only cognitive-but also social, cultural, and affective-rooted in human practices and symbolic resources in digital spaces.

The purpose of this study is to address a few gaps. First, although there is evidence of the potential for

VR in language education at the individual level, fewer studies have considered how these types of gains can be manifest in practice and/or in identity. Second, research on Extracurricular English in Indonesia has included the vocabulary development and pragmatics of English through offline or desktop games but seldom considers VR games as an innovative space. Third, there are few ethnographic studies which examine how VR game worlds can foster reflective practice, experimentation with identity, and community-engaged ways of learning English. Therefore, this study seeks to highlight these aspects by focusing on VR gaming communities-which are viewed as digital tribes-where English is used across multiple semiotic modes and in culturally rich practices. This immersive and socially driven environment resembles the synergy between virtual reality and language learning documented in primary school settings, where VR applications have been shown to increase motivation and engagement through embodied experiences and cultural contextualization (Jatmika et al., 2022)

From a theoretical standpoint, this research contributes to the growing intersection between language learning, digital ethnography and sociocultural theory. It carries the theory of affinity spaces into the realm of virtual game play, illustrating what happens when English language norms and practices develop through shared play and shared interpretive frameworks (Pellicone & Ahn, 2018) In addition, this inquiry extends the idea of extracurricular language learning, identifying practices that are not only learner-initiated for the purpose of language development, but emerge modifying social norms and interactions. VR immersive environments heighten these interactions and, thus, make virtual tribes much more present, interactive and immersive than EE spaces.

Practically, this research offers insights for English Language Teaching (ELT) in Indonesia and beyond. As educational contexts become increasingly digitized, teachers and instructional designers can benefit from an understanding of how VR gaming communities encourage informal language development (Irwandi, Hidayati, & Lukman, 2023). This study will illuminate how peer interactions, identity experimentation, and supported participation in digital tribes can inspire new pedagogical models-models that leverage learner autonomy, cultural relevance, and digital literacy within a cohesive, context-aware framework (Suci, 2022).

Communities in Virtual Reality Gaming Worlds addresses critical questions at the intersection of language, identity, technology, and culture. It examines what it is like for English language learners to participate in VR gaming contexts as digital tribes, how identities and community norms converge in their practices with language and the ways these spaces promote the development of pragmatic, sociolinguistic, and digital competences. These insights help to further advocate for a robust ethnography of VR learning experiences prioritizing the potential of VR as a sociocultural ecology where learning, identity, and community develop co-dependently and meaningfully (Ceuterick & Ingraham, 2021) from both the global research paths and the EFL context of Indonesia.

METHODS

Research Approach

This study is taking a modified qualitative virtual ethnography approach to investigate informal English language learning in an immersive VR game community. Virtual ethnography has been useful in analyzing ways of speaking and cultural practices through immersive online spaces or as it is sometimes referred to, ethnography as part of a digital anthropology. Given the sociocultural complexity of VR gaming spaces, this study's approach includes a multimodal data collection process with immersive observation as a method in the process which are consistent with some the methodology of other studies in VR spaces like Second Life and other virtual worlds.

Research Locus

During a three-month period, data was collected in VRChat, a popular social virtual reality gaming environment. The researcher was an active observer in VRChat and entered various English-language game rooms each day while operating as an avatar identity. All types of recent language practices, identity constructions and negotiations, and social rituals by members of this new "digital tribe" were documented

through this type of participatory observation. Open-ended immersion in spaces like VRChat provides context about collective norms for conduct and communication, and the meanings that are shared (Boellstorff et al., 2004).

Participants

Purposive sampling was employed to select 12 adult English language learners, ages 18 to 40, who engaged in VRChat for a minimum of five hours per week. The participants represented multiple linguistic backgrounds. The sample included participants with linguistic backgrounds including, Indonesian, Filipino, Brazilian, and Eastern European. According to ethics standards for online research, informed consent was collected using an avatar-based interaction. The interaction with participant avatars provided anonymity during the recording process where participants were aware their interactions were being recorded.

Data Collection

To improve the credibility and complexity of the findings, the study utilized data triangulation by employing multiple sources of evidence, including:

1. Field notes that the researcher recorded by participant observation for approximately 90 hours (Phillippi & Lauderdale, 2018).
2. Voice chat logs and screenshots (with permission), and twelve semi-structured in-game voice chat interviews that lasted 30 to 45 minutes (Brenya, 2024).
3. Archival artifacts, including prior group chats, social media posts, and event announcements, were analyzed as interpretive context (Kusuma et al., 2020).

Data Analysis

The data were examined with a series of iterations which combined discourse analysis and thematic analysis. Early codes were clustered into the emerging themes of peer support, language function, identity enactment, and group norms. Constant comparison further refined the codes, which clustered around subthemes of borrowing phrases, code-switching, and pragmatic negotiation. Our analysis was based on Gee's affinity space theory and ideas from research in English extracurricular education (Febriyanti & Lustyantie, 2020). To ensure rigor, member checks were conducted: two additional VR researchers were scheduled to do peer debriefing meetings and the respondents reviewed summaries of the themes to assess their legitimacy

Multimodal analysis strategies enable researchers to analyze communication beyond spoken language, which can include avatar gesture, spacial dimensions, and paralinguistic features. This complements the tenets of multimodal anthropology, which positions meaning creation in VR as a process of co-creation across semiotic modalities. Researcher trustworthiness in the study was established through prolonged engagement, triangulation, and reflexivity. I utilized analytical memos to note researcher bias and contextual engagement while promoting reflexivity and transparency (McInnes et al., 2017) Selected, anonymized chat text demonstrates real-world language practices, while rich descriptive accounts enable the meanings of communal practice, and the performance of various identities in the VRChat space to emerge.

The methodology is bolstered in credibility through the methodologies of Indonesian TEYL and EFL journals. For example, (Kurniawati et al., 2022) case study that uses observation techniques, open-ended interviews, and teacher/student questionnaires to teach VR vocabulary has provided further evidence that this methodology can work in Indonesian contexts. Similarly, Indonesian journal research (e.g., ELTin) has continued to present inductive and qualitative approaches that utilize participant narratives and a thematic coding approach when investigating digital literacy and EFL behaviors.

Ethics

The ethical protocols in place followed the American Anthropological Association's regulation and institutional protocol regarding human subjects. Ethical protocols were upheld, and through the use of pseudonyms (e.g. Tiger, Luna, and Phoenix) these avatars maintained anonymity. In addition, participants were able to remove recordings; sensitive topics, like politics or personal history, were avoided and data was securely stored and encrypted. This recommendation aligns with many of the ethical guidelines for research in social virtual reality environments, from Emerging & Robb (n.d.) which stress the need to obtain informed consent, respect participants' privacy, and use pseudonyms in immersive virtual settings. In addition, to protect participants and maintain trust in remote VR based research, demonstrated best practices to communicate to participants include: encrypting sensitive data and instituting clear data governance policies (Paneva & Alt, 2024).

In conclusion, this multimodal virtual ethnography methodology, validated by international virtual world research and Indonesian EFL practice, is well suited to investigate how English language learning takes place in VR gaming communities. By combining immersive observation, semi-structured interviews, artifact analysis, and multimodal interpretation, this study promises deep insights into digital tribe formation, language negotiation, and social learning in an immersive virtual context.

RESULTS

The data produced from 90 plus hours of immersive engagements in VRChat along with participant interviews, field notes, and observation notes yielded a set of interrelated findings. The findings have been organized thematically, and indicate the emergent patterns connecting sociocultural theory, affinity space theory, multimodal communication, and informal learning.

1. Advances in Listening Comprehension

a) Participants routinely stated that they believe their listening comprehension abilities improved during their time in VRChat.
b) The informal activities (talking to people in public rooms, joining in a chat, listening to groups of other users, and exploring user-generated worlds) contributed to the development of real-time processing of spoken English.
c) The self-reports provided by the participants coincide with the quasi-experimental study of Jehma & Akaraphattanawong (2023) where listening comprehension ended with measurable gains in TOEIC listening scores after a few rounds of formalized VRChat listening.
d) In this ethnographic context the gains occurred without any guided listening drills, or intentional listening opportunities, demonstrating that listening improvement can happen in informal opportunities.

2. Enhanced Speaking Fluency and Accuracy.

a) Repeated exposure with the communicative events helped to enhance participants' speaking fluency, grammatical accuracy, and lexical range.
b) Activities such as organizing mini-games, giving a mission report, and hosting discussion events required participants to do prolonged, uninterrupted speech and/or spontaneous language production.
c) Use of peer corrections and collaborative problem solving functioned as natural scaffolding.
d) Similar tendencies were reported in Cahyadi et al. (2022) in which Indonesian university students involved in extracurricular VRChat showed improvement in their overall oral proficiency.

3. Peer-to-Peer Learning in Affinity Spaces

a) Informal learning structures developed through community-based practices:
   - Language exchange hangouts
   - Pronunciation correction breaks during games
   - Shared digital resources like vocab glossaries or conversation prompts in virtual "classrooms"

b) These projects illustrate the affinity space model described by Yudintseva (2023) and individuals contributed varied levels of expertise to the collective knowledge of the group.

c) Engagement was non-linear—newbies observed others before contributing, and then began to participate in more active roles.

4. Quality of Engagement Over Total Screen Time

a) Statistical and trend data from Jehma & Akaraphattanawong (2023) graciously presented in paraphrase—suggests that quality matters more than quantity when being online.

b) Participants actively having meaningful conversations without the passive presence in VRChat felt they made more relative perceived progress.

c) This suggests that longer exposure does not automatically yield better outcomes.

5. Multimodal Communication Support for Learning

a) VRChat's affordances of avatars, gestures, spatial placement, and virtual props created additional semantics to spoken messages.

b) Physical gestures (e.g., pointing, waving, proximity) reinforced meaning when it came to verbs and directional language.

c) These embodied cues reflect the results found that multimodal output in VR leads to retention and understanding (Feng & Ng, 2024).

6. Avatar Realism and Anxiety Control

a) Minimalist or cartoonish avatars minimized language anxiety and freed participants to speak better (Coplan et al., 2017).

b) Participants viewed the avatar as a "mask," drew attention away from his/her physical presentation as a person, allowing conversation to take precedence instead.

c) Participants tended to be more daring with vocabulary and sentence structures.

7. Multilingual Practices: Code-Switching and Translanguaging

a) Code-switched between English and their first language (e.g. Tagalog, Bahasa, Japanese) while engaged in collaborative artifacts/tasks.

b) When explaining abstract concepts, translanguaging practices were able to provide scaffolds for each other.

c) Ko & Eslami (2021) fabulously argue that multilingual flexibility is not simply tolerated, but is a requirement of pragmatic competence.

8. Social Rituals and Language Event Themes

a) Regularly recurring community events (e.g., “English Karaoke Night”, “Story Hour”) served as low-stakes language practice situations.

b) These rituals created opportunities for the repetition of formulaic language (greetings, question-answer patterns, narrative sequenced).
c) Wei et al. (2022) documented similar social ritual effects in gamified language experiences, where rituals act to support skills' internalization.

9. Exposure to Multiple English Accents

a) The informal gatherings brought together speakers from various linguistic backgrounds, bringing English learners into contact with many English accents and dialects.
b) Participants noted increased attentiveness to and flexibility in listening as a result.

10. Educational Value of Cultural Mistakes

a) Cultural blunders (e.g., inappropriate jokes) prompted peers to step in and clarify culturally, and this clarified cultural norms while developing sociopragmatic awareness.
b) Haugh & Chang (2015) argue that these uncomfortable moments can highlight cultural norms and build reflexive learning.

11. Asynchronous Support Provided by Text Chat and Captions

a) Text channels and closed captioning lessened the challenges of unintelligible audio and unfamiliar accents.
b) Some learners also watched the transcripts after each session, using them as self-study resources.

12. Embodied Learning and Vocabulary

a) Vocabulary became linked to virtual spaces and objects (e.g., “portal”, “sphere”, “hangout”), and using the word in contexts helped learners retain and remember vocabulary.
b) This complements embodied learning models developed in Feng & Ng (2024).

13. Challenges and Limitations

a) Inconsistent exposure—based on self-motivation—lessened learning progress for some.
b) Technology issues (lag, headset errors, voice capture failures) caused frustration/disengagement.

14. Scalability and Educator Competencies

a) Implementation at scale would rely on educator tech competencies, template worlds, and structured activity designs.
b) Jehma & Akaraphattanawong, (2023) found without that support, it is difficult to replicate.

15. AI Tutors and the Future of VR Learning

a) Participants expressed excitement about incorporating AI-driven individualized tutoring agents (e.g. ELLMA T) to provide individualized feedback and support structured speaking tasks (Pan et al., 2024)
b) Such systems would add to peer interaction, though minimizing equity concerns.

Table 1. Summary of Main Findings

Theme	Key Observations	Supporting References
Listening Gains	TOEIC improvements; informal listening opportunities	Jehma & Akaraphattanawong (2023)
Speaking Skills	Fluency and accuracy gains via immersive events	Cahyadi et al. (2022)
Affinity Spaces	Peer-created resources; voluntary participation	Yudintseva (2023)
Engagement Quality	Quality > time for improvement	Jehma & Akaraphattanawong (2023)
Multimodal Support	Gestures and props aid comprehension	Feng & Ng (2024)
Avatar Effects	Cartoon avatars reduce anxiety	Liu et al. (2023)
Multilingual Practices	Code-switching aids learning	Ko & Eslami (2021)
Social Rituals	Themed events reinforce patterns	Wei et al. (2022)
Accent Exposure	Multilingual accents enhance adaptability	—
Sociopragmatic Learning	Cultural misunderstandings prompt reflection	Haugh & Chang (2015)
Text Support	Closed captions, transcripts as scaffolds	—
Embodied Vocabulary	VR object associations boost retention	Feng & Ng (2024)
Challenges	Motivation and technical issues	—
Scalability	Requires technical training and resources	Jehma & Akaraphattanawong (2023)
AI Tutors	Adaptive, equitable participation	Pan et al. (2024)

DISCUSSION

The current study not only affirms the growing literature on virtual reality as a semi-structured space for informal second language learning, but also expands on the earlier research agenda. Previous studies have tended to focus on structured, instructor-led VR interventions in a post-performance learning context. The ethnographic approach of this study provides support and evidence that participating in unstructured, community-driven interaction can also lead to significant linguistic gains in listening and speaking ability.

Listening and Speaking Development.

Our findings confirm Jehma & Akaraphattanawong (2023) quasi-experimental findings on listening improvement but extend our comprehension of listening improvement, and their applicability, to informal contexts. In their structured study, improvements followed a systematic design with plainly defined tasks, while our participants improved listening comprehension in informal contexts through ambient listening and casual conversation. This is consistent with Schmidt's (1990) noticing hypothesis that language learning relies on noticing features of language in context and in use. This is something that occurs in VRChat through conversation in a variety of social spaces.

In speaking, Cahyadi et al. (2022) recorded fluency development for learners in participating in extracurricular VRChat sessions. Our data confirms these findings but also suggests that fluency can also develop and be supported in playful, low-stakes contexts without an evaluative component. This reinforces Krashen's (1982) affective filter hypothesis: if a learner experiences success in multiple, non-evaluated environments this will in turn lower their anxiety when using the target language in a social context and create a sense of comfort from which language can be produced.

Peer Learning and Affinity Spaces.

Peer-to-peer interaction was the most prominent catalyst of learning in the present study, with community members playing the roles of informal tutors, resource providers, and conversational partners. The decentralized authority of affinity spaces, in accordance with Gee's (2005) theory, provides varying levels of expertise or no-one was in an expert position, because knowledge is distributed among participants rather than being held by an expert. This lower friction democratization may create a better contextual affordance for maintaining learner engagement over longer periods because learners set their engagement level and may enter a space and access only small bits at a time to increase their engagement over time.

Quality of Engagement vs. Quantity.

Our finding that valuable conversation outweighed total time spent echoes the similar argument made by Philp & Duchesne (2016) that is, the quality of the task engagement factors into the language gains. There is likely little to be gained from passive presence in VRChat, similar to being in a classroom but not participating.

Multimodal and Embodied Learning.

In support of a more multimodal way of communicating, along with Feng & Ng (2024) and Macedonia (2014), our participants benefited from combining gestures, body language, spatial context, and virtual objects into their meaning making. This supports the theory of embodied cognition, which emphasizes how sensorimotor experiences contribute to retaining language**.**

Affective and Identity-Related Factors.

Avatar customization's role in lowering anxiety is consistent with the experimental findings of Zheng et al. (2023) VRChat lessens self-evaluation and, consequently self-consciousness, by permitting learners to take on their identity through non-realistic avatars, allowing for more risk-taking—an important condition for learners to experiment with language. This aligns with Norton's (2013) similar work on identity within the language learning process as the avatars allowed for the potential for a more confident identity that embraces participation with language.

Multilingual Practices.

The observation of code switching seems to resonate with the translanguaging model described by Mateus (2014), specifically where multilingualism is viewed as resource and not barrier. By bouncing in and out of languages, learners are able to fill in their comprehension and work through and produce understanding.

Social Rituals and Accents.

The repeated occurrences of "English Karaoke Night" echoes the findings of Wei et al. (2022) around gamified ritual practices that reify patterned discourse, learners are also able to leverage exposure to different accents to help build their global English competence, and is consistent with the understanding of Jenkins (2009) framework of English as a Lingua Franca (ELF).

Limitations and Challenges.

The difference in exposure to different languages based on self-motivation highlighted the need for skills in learner autonomy (Little, 2007). The technical limitations noted here, like those in Wu et al. (2025) emphasize the importance of stable infrastructure for sustained engagement. Without eliminating these limitations/constraints to the learner experience, the idea of VRChat as a pedagogical tool may not progress.

Scalability and Institutional Buy-in.

As noted by Jehma & Akaraphattanawong (2023), scalability in educational-capable VRChat is impacted by the technical abilities of educators. Our observations support this conclusion, pointing towards the need for institutions to provide technical training, world-building templates, and clustered resources to better reduce barriers to preparation.

AI Integration and Future Directions.

There is emerging AI integration within VRChat Pan et al. (2024) that can facilitate hybrid learning environments that can combine peer interaction with automated, adaptive scaffolding. Such AI integration can help to mitigate access barriers and also allow educators to provide targeted, corrective feedback, which can provide both more consistency and personalization of the learning experience.

Pedagogical Implications.

The findings suggest that VRChat can effectively complement formal English instruction by integrating hybrid curricular approaches that combine classroom objectives with VR-based social practice. It provides low-stakes speaking opportunities through avatar personalization, leverages multimodal scaffolding to enhance comprehension and retention of new language, and offers community-based resources that foster learner autonomy while sustaining continued engagement.

In summary, informal VRChat environments cannot fully replace a sequence of systematic instruction, but they do provide a uniquely social space enhanced by multiple modes to create relatedness. While a structured language program should be able to integrate informal VRChat, those informal places can be harnessed alongside a framework of instruction to support the range of language learners who have the potential enhance their communicative capacities in English while developing intercultural competences and engaging authentically in English.

CONCLUSION

This study examined how VRChat gaming communities support informal English learning using a multimodal virtual ethnography approach. The findings show that VRChat functions as an affinity space where learners develop language through play, identity experimentation, and peer collaboration, extending learning beyond traditional classroom constraints.

In addition, key contributions include the reduction of speaking anxiety through avatars, enhanced motivation, and the use of multimodal interactions to support comprehension, retention, and sociopragmatic competence. Participants co-constructed communicative practices while negotiating identity and competence within community norms.

Despite the benefits, it has limitations that include variability in outcomes due to technology access, motivation, and digital literacy. Future research could explore scalable integration of VR learning with formal curricula, longitudinal language development, and AI-assisted scaffolding to optimize learning outcomes.

Furthermore, theoretically, the study reinforces the significance of community, culture, and identity in informal language acquisition. Practically, it suggests that VR environments can complement formal English instruction by promoting autonomy, engagement, and intercultural awareness. Overall, VRChat provides an effective, socially rich platform for developing pragmatic fluency, confidence, and global digital belonging among learners.

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