

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context

¹Mohammad Noor Zuhri*, ¹Ahmad Lizamuddin

¹English Education Department, Faculty of Languages, Literature, and Cultures, Universitas Islam Sultan Agung, Indonesia

***Corresponding Author**

Email: zuhri@unissula.ac.id

Received:
05 June 2025

Revised:
04 August 2026

Accepted:
09 August 2026

Published:
11 August 2026

Abstract

The growing use of immersive technologies in language education has intensified interest in how teachers evaluate their pedagogical value and feasibility. Although previous research has documented the potential of Virtual Reality (VR) for language learning, less is known about how teachers interpret its classroom use in relation to institutional digital conditions. This descriptive qualitative study explored the perceptions and experiences of five English teachers who had prior exposure to VR-supported activities. Data were generated through semi-structured interviews and limited classroom observations and were analyzed thematically. The teachers described VR as offering immersive and contextual opportunities for language practice and perceived that some learners participated more readily during VR-supported activities. They also reported constraints related to device access, connectivity, preparation time, curriculum alignment, professional learning, and uneven institutional support. The findings indicate that teachers' experiences of VR were shaped not only by perceived pedagogical affordances but also by the resources, norms, and support available in their institutions. Because student competence, motivation, and anxiety were not directly measured, these findings should be interpreted as teacher perceptions supported by limited observational indications. The study contributes a context-sensitive account of the conditions teachers considered when using VR in English language teaching and highlights the need for pedagogically aligned materials, professional development, and realistic institutional planning.

Keywords: Digital culture; immersive learning; institutional digital conditions; technology integration; Virtual Reality (VR)

INTRODUCTION

The proliferation of digital technologies in the last two decades has significantly changed the way education is designed and delivered in many countries (Alam et al., 2025). Shonfeld et al. (2021) argue that innovations such as artificial intelligence, augmented reality, and virtual reality now play an important role in shaping learning environments that are more adaptive and responsive to the needs of the digital generation. In this context, digital culture not only affects the way students interact with information, but also requires teachers to

develop more creative, immersive, and collaborative learning approaches (Wang et al., 2024). This transformation has a direct impact on language education, which requires contextualized and authentic learning experiences. Therefore, the integration of digital technology becomes one of the main strategies in strengthening the quality of language learning in the current era. This change opens up a wider research space on how technology can be effectively utilized in creating more relevant and engaging language learning.

Virtual Reality (VR) is one of the technological innovations that offers great potential in English Language Teaching (ELT) (Chen et al., 2022). This technology allows students to experience learning that resembles real-world situations through immersive and interactive virtual environments. In the context of language learning, VR can present simulated conversations, social situations, and cultural contexts that are difficult to present through traditional learning (Yan et al., 2024). Previous studies have shown that the use of VR can increase students' motivation, participation, and confidence in using English, as they can practice in a safe yet realistic environment (Ding, 2024). Through multimodal interaction, VR supports richer and deeper learning, especially in the development of communication skills (Bahari, 2022). Thus, VR becomes one of the promising approaches to overcome various limitations in classroom-based language learning.

However, the successful utilization of VR in ELT is greatly influenced by the perception and readiness of teachers as the main implementers of the learning process (Sharaf & Musawi, 2025). Teachers play an important role in deciding whether a technology is feasible and appropriate to be integrated into the classroom, including how the technology is utilized to achieve pedagogical goals. Teachers' perceptions regarding the benefits, challenges, and relevance of VR will determine the extent to which this technology can be effectively adopted in learning practices. In addition, teachers' level of digital literacy and confidence in their ability to use the technology also play an important role in this adoption process. In the context of an ever-evolving digital culture, teachers are required to navigate such changes and adapt their teaching strategies on an ongoing basis (Elhambakhsh et al., 2024). Therefore, understanding how teachers interpret the use of VR is an important step in ensuring its successful implementation in the language classroom.

The integration of VR in language education is also faced with various challenges that need to be considered comprehensively. Limitations of devices, implementation costs, and infrastructure are often the main obstacles in its application in schools or educational institutions (Bakk et al., 2025). In addition to the technical aspects, teachers also need to adjust learning materials and methods to suit the virtual environment that VR offers. Health issues such as cybersickness, as well as students' psychological and social factors, are also taken into consideration in designing VR-based learning experiences (Dechsling et al., 2024). The social and cultural context in which the technology is applied also affects the level of acceptance and effectiveness of its use. These challenges show that VR integration is not just a technical issue, but involves interrelated pedagogical, social, and cultural considerations.

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

Although research on the use of VR in language learning continues to grow, studies that specifically highlight teachers' perspectives, especially in the context of digital culture, are still limited (Elhambakhsh et al., 2024). Most studies focus on the effectiveness of VR from the students' perspective or on the technical aspects of technology development, while teachers are rarely placed as the main focus of analysis. In addition, not many studies have explored how digital culture affects teachers' readiness, experience, and attitude towards adopting VR in the classroom. These research gaps indicate the need for more in-depth studies on the relationship between teachers' perceptions, VR technology, and the dynamics of digital culture in the ELT context. Research that takes teachers' perspectives into account will make an important contribution to understanding the factors that determine the success of VR implementation.

The integration of Virtual Reality (VR) in education has evolved from a mere technological innovation to a strategically valuable pedagogical approach (Chen et al., 2022). VR offers immersive and interactive learning experiences through simulated environments that resemble real situations, thus enabling deeper cognitive and affective engagement. Features such as immersion and interactivity provide opportunities for experiential learning that have been difficult to realize with traditional digital media. In the context of language education, VR's ability to simulate communication and social interaction adds significant value to the learning process. Although early research focused more on the technical aspects of VR development, recent studies show that this technology is increasingly recognized for its pedagogical relevance. This development shows that VR is now seen not only as a technological aid, but as a learning medium capable of driving innovation in modern teaching practices.

The utilization of VR in English Language Teaching (ELT) is becoming increasingly interesting because this technology is able to present an authentic and contextual communication environment (Yan et al., 2024). With VR, students can practice speaking and language comprehension skills in scenarios that resemble real-life social situations, such as conversations in public spaces or interactions in specific cultural contexts. This immersive experience provides an opportunity for students to explore language in a more natural and real-use-oriented way, which is difficult to achieve through classical methods. In addition, a number of studies show that VR can increase students' motivation and confidence, especially those who tend to be passive in face-to-face learning (Ding, 2024). However, some studies also highlight that the use of VR in ELT has not been fully aligned with the curriculum and is still limited to small-scale experiments (Bahari, 2022). This suggests the need for more in-depth research on the integration of VR in more realistic and sustainable language learning contexts.

The changing learning paradigm influenced by digital culture also affects how technologies such as VR are applied in ELT (Shonfeld et al., 2021). Digital culture has shaped the way students interact with information, develop digital identities, and produce language in a much more multimodal format than previous generations. This requires teachers to design lessons that rely not only on linguistic skills, but also on students' ability to navigate complex digital environments. At the same time, digital culture provides opportunities for more

collaborative, flexible, and experiential learning practices, including through immersive technologies such as VR. However, adapting to digital culture is not always easy, as teachers are faced with challenges such as digital distraction, limited digital competence, and the need to constantly update pedagogical strategies. Therefore, understanding the relationship between VR, ELT, and digital culture is important to explain the conditions that frame the implementation of these technologies.

In the context of technology integration, teacher perceptions are often the most powerful determining factor in the successful adoption of innovations such as VR (Ateş & Kölemen, 2025). Xue et al. (2024) emphasize that technology adoption theories such as TAM, UTAUT, and TPACK strongly influence teachers' decisions to implement technology in teaching regarding benefits and ease of use. Teachers who see VR as an effective tool to improve learning outcomes are generally more willing to experiment and adopt it. However, such perceptions are influenced by other factors, including institutional support, access to training, and teachers' ability to integrate technology into their teaching strategies. Research on VR shows that although teachers recognize its pedagogical potential, many of them still have doubts regarding the readiness of the infrastructure or the suitability of VR for classroom needs (Sharaf & Musawi, 2025). This tension between VR potential and teacher readiness is what makes research on teacher perceptions so important in the context of ELT and digital culture.

The integration of VR in ELT is also inseparable from various barriers that arise at the technical, pedagogical, and psychological levels. Technical barriers such as device limitations, implementation costs, and technological infrastructure are still common issues that hinder its implementation in many educational institutions (Bakk et al., 2025). Pedagogically, teachers need to adjust the instructional design so that the use of VR truly contributes to the achievement of language learning objectives. In addition, psychological aspects such as anxiety about using technology, students' adaptation to the virtual environment, and the potential for cybersickness are also important concerns (Dechsling et al., 2024). Nevertheless, various supporting factors such as adequate training, institutional support, and the availability of user-friendly VR applications can increase teachers' confidence and readiness to adopt this technology. By understanding the dynamics of these barriers and drivers, research can provide a more realistic picture of the field conditions related to VR implementation in ELT. This is important for formulating more effective and sustainable implementation strategies.

When VR, ELT, digital culture, and teacher perceptions are brought together in one analytical framework, it appears that the relationship between these four elements is dynamic and mutually influential. VR essentially provides pedagogical affordances that can enrich language learning practices, but its effectiveness is greatly influenced by how teachers assess and interpret the technology (Elhambakhsh et al., 2024). Meanwhile, digital culture creates an ecosystem that encourages innovation, but at the same time raises new expectations that are not always easy for teachers to fulfill. In this situation, teacher perception becomes a mediator that bridges the potential of VR with the

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

reality of implementation in the classroom. Although a number of studies have examined VR integration in learning, very few have examined the VR-ELT-digital culture relationship simultaneously from the teachers' perspective (Sharaf & Musawi, 2025). Therefore, the study addressed three research questions: (1) How do English teachers perceive the pedagogical affordances of VR-supported English language teaching? (2) What challenges do teachers experience when integrating VR into English language teaching? (3) How do institutional digital conditions shape teachers' readiness and experiences in using VR?

Therefore, this study investigates teachers' perceptions of the integration of virtual reality (VR) applications into English language teaching within the context of an evolving digital culture. Specifically, it examines the perceived benefits and challenges of VR integration, as well as the factors shaping teachers' readiness to adopt this immersive technology. By foregrounding teachers' perspectives, the study addresses the limited understanding of how educators evaluate and respond to VR in actual ELT contexts. The findings extend the literature on technology integration in ELT by providing a teacher-centered account of VR adoption and identifying contextual considerations that may influence its effective and sustainable implementation. Practically, the study offers insights that may assist educational institutions, policymakers, teacher educators, and technology developers in designing appropriate professional development, institutional support, and VR-based learning initiatives. Thus, this study contributes both empirical evidence and practical direction for the responsible integration of immersive technologies into language education.

METHOD**Research Design**

This study employed a qualitative descriptive design to examine how English teachers understood and described their experiences of VR-supported language teaching. Qualitative description was selected because the research questions sought a practice-near account of perceived affordances, implementation challenges, and institutional conditions rather than a causal test of technology adoption or a phenomenological account of lived experience. The analysis was primarily inductive; theoretical literature was used during interpretation rather than as a predetermined coding model.

Setting and Participants

The study involved three secondary schools in Central Java, Indonesia, during one academic semester. Five English teachers were purposively selected because they had used immersive or 360-degree VR in at least two lessons during the previous year. The sample includes teachers with 6-18 years of teaching experience and varying degrees of VR training. The sample is information-rich for a narrowly scoped qualitative account and is not statistically representative.

Table 1. Participants' Demographic, Professional, and VR-Related Characteristics

ID	Setting/level	Teaching experience	VR exposure	Device/application
T1	Public senior high school / Grade 10	18 years	6 lessons; workshop-trained	Meta Quest 2; Mondly VR
T2	Private senior high school / Grade 11	12 years	4 lessons; peer-supported	Meta Quest 2; Immerse demo
T3	Public junior high school / Grade 9	9 years	3 lessons; self-directed	Phone headset; YouTube 360
T4	Private junior high school / Grade 8	6 years	2 lessons; short course	Phone headset; 360 Cities
T5	Public senior high school / Grade 10	15 years	5 lessons; workshop-trained	Meta Quest 2; custom 360 scenarios

Data Collection

10-question interview guide was developed from the three research questions and piloted with one non-participating English teacher. Five interviews were conducted in Indonesian by the first author, lasted 38-52 minutes, and were audio-recorded with permission. Recordings were transcribed verbatim in Indonesian; excerpts selected for publication were translated into English and checked against the source by both authors. Three non-participant classroom observations, each lasting 45-60 minutes, documented speaking tasks using travel, public-service, and object-description scenarios. Structured field notes recorded the task, device arrangement, teacher support, learner interaction, technical interruptions, and post-activity debriefing. No follow-up interviews were conducted in this study.

Data Analysis

Data were analyzed through a thematic analysis approach following Braun and Clarke's procedure of six systematic stages (Braun & Clarke, 2021). Both authors first read the transcripts and field notes; the first author generated initial semantic codes in a spreadsheet, and the second author acted as a critical discussant rather than an independent reliability coder. Candidate themes were developed by grouping related codes and were repeatedly checked against the full dataset and the research questions.

Research Quality, Reflexivity, and Ethics

Credibility was supported through comparison of interview accounts with observation notes, attention to divergent cases, peer debriefing with a qualitative-research colleague, and an audit trail containing coding versions and

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

analytic memos. The researchers acknowledged their favorable prior interest in educational technology and recorded reflexive notes about how this position could shape interpretation. Institutional permission and written informed consent were obtained before data collection; pseudonyms T1-T5 were used; encrypted files were accessible only to the authors; and participants could withdraw before analysis. VR sessions followed school safety procedures, included seated use where appropriate, device cleaning, short exposure periods, and immediate discontinuation if discomfort occurred.

RESULTS AND DISCUSSION

Results

Thematic analysis of the interview and observation data revealed four main patterns that show how teachers interpret and implement Virtual Reality (VR) in English language learning amidst the influence of digital culture. In general, teachers show enthusiasm for the pedagogical potential of VR, especially in creating more immersive and interactive learning. However, they also face a number of obstacles that make the utilization of VR not always smooth in classroom practice. The findings show a complex dynamic between technology, teacher readiness, and institutional support. In addition, the digital culture in schools also shapes the way teachers assess and make decisions about VR adoption. The following section presents a narrative overview of the research findings, accompanied by tables and conceptual illustrations that can be directly used in the article document.

Teachers describe VR as a technology capable of creating a much more immersive learning experience than traditional learning methods. They consider that VR allows students to enter simulated environments that resemble authentic real-life situations, such as conversations in public places, interactions in specific cultural contexts, or functional activities in travel scenarios. This condition allows students to practice English more naturally, contextually, and pressure-free. Field observations supported this statement, showing that students showed more active verbal and nonverbal responses when in the virtual environment. Teachers also noted that VR encourages *experiential learning*, which makes students learn through exploration and direct action. Therefore, VR is seen to expand the learning space and provide added value that is difficult to achieve by conventional classroom-based learning.

Table 2. Immersive Learning Affordances of VR in ELT

Sub-Aspect	Interview Evidence	Observation Evidence
Authentic simulation	The teacher stated that VR "presents real-world-like situations."	Students interact with avatars and virtual objects in specific scenarios.
High engagement	The teacher sees an increase in students' focus and enthusiasm.	Students show active interaction and spontaneous responses.
Experiential learning	Teachers rate VR as "making students learn by doing."	Students work on action-based tasks such as giving instructions or describing objects.

In addition to providing a more vivid learning experience, teachers also report that VR has a significant impact on increasing student motivation and participation. They observed that VR captured students' attention from the start and created a strong sense of curiosity. Students who usually lack confidence appear to speak up more when in a virtual environment, as they feel more free from social pressure. Classroom observations showed that students were more actively engaged, asking questions, responding spontaneously, and showing more enthusiasm. Some teachers also felt that VR created a "safe" learning environment to try mistakes, which in turn strengthened students' self-confidence. These overall findings show that VR not only serves as a learning aid, but also as an effective motivational trigger in language learning.

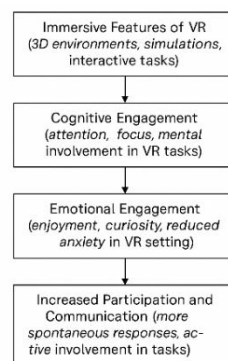


Figure 1. Conceptual Model of VR-Enhanced Motivation and Participation

Despite its many potentials, teachers also identified a number of challenges that hinder the implementation of VR in English language learning. Technical challenges were the most frequently mentioned aspect, including device limitations, unstable internet connections, and system glitches that disrupt the learning flow. Pedagogical challenges also emerged, mainly related to the difficulty of adapting VR materials to the curriculum or specific learning objectives. Teachers feel the need to spend additional time preparing VR activities, and this is exacerbated by the lack of professional training they receive. The varying level of digital literacy among teachers further weakens their readiness to maximize VR in the classroom. These findings confirm that successful VR implementation depends not only on technology, but also on structural support such as training, facilities, and school policies.

Table 3. Challenges in VR Integration as Reported by Teachers

Category of Barriers	Key Findings
Technology	Limited devices, technical glitches, unstable internet connection
Pedagogical	Difficult to adapt VR to the curriculum
Professional	Lack of training and technical support
Digital Literacy	Uneven teacher digital competence

The digital culture in schools was also found to strongly influence teachers' decision to adopt VR. Teachers working in schools with a strong digital culture reported that they felt supported to experiment with new technologies due to facilities, policies and an atmosphere that encouraged innovation. In

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

contrast, teachers in schools with a weak digital culture felt burdened by the demand to use technology without adequate support. Some teachers recognize that they need to continuously improve their digital competencies to keep up with the rapid changes in educational technology. Digital culture ultimately acts as both a catalyst and a constraint in VR adoption, depending on how schools manage the digital transformation. These findings suggest that VR integration cannot be separated from the cultural and institutional context in which teachers work.

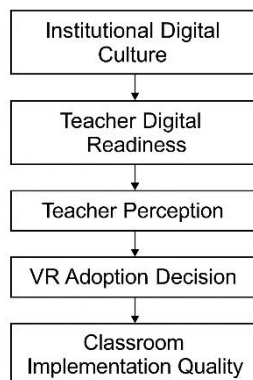


Figure 2. Interaction Between Digital Culture and VR Adoption

Overall, the results show that teachers value VR as a technology capable of improving the quality of language learning through a more immersive learning experience and increased student motivation. However, the success of its integration is highly influenced by technical conditions, pedagogical readiness, and institutional support. Digital culture plays an important role as a context that reinforces or inhibits the adoption of VR, so the integration of this technology must be understood as a process that involves interactions between individual, structural, and cultural factors. These findings provide a basis for discussion and the development of recommendations for a more effective and sustainable application of VR in English language learning.

Discussion

The research findings show that teachers view Virtual Reality (VR) as a learning tool capable of creating immersive and contextualized learning experiences, a condition that cannot be fully provided by traditional classrooms. This interpretation of the data is in line with Kolb's concept of experiential learning, which emphasizes that effective learning occurs when students experience, react, and reflect on stimuli directly (Chen et al., 2022). However, in the context of VR, this experience is enriched by simulated environments that resemble the real world, thus providing space for students to carry out language practice authentically. Previous studies have shown that immersive technologies increase cognitive engagement through social interactions in virtual environments (Wang & Zhou, 2025). These findings extend previous literature, which states that immersive technologies increase cognitive engagement, but this study asserts that such engagement does not only arise from visual aspects, but rather from the social interactions created in the virtual environment.

Therefore, the results of this study make a theoretical contribution that VR can be a catalyst in strengthening situated learning, which places students in functional language use contexts (Yan et al., 2024). Practically, the implication is that English language learning needs to incorporate more VR-based simulations to enrich the learning context, especially in speaking and interpersonal communication skills.

In addition to creating an immersive learning experience, the study found that VR significantly increased student motivation and participation, even for those who were previously passive in classroom activities. This finding confirms technology-based motivation theories, such as Self-Determination Theory (SDT), which states that learning experiences that provide a sense of autonomy, competence, and connectedness are able to increase intrinsic motivation (Jiang & Fryer, 2024). The VR environment provides opportunities for students to explore freely, participate without fear, and feel a sense of control over their interactions, thus fulfilling these elements of SDT. However, this study also enriches the theory by showing that motivation in VR arises not only from a sense of autonomy, but also from a sense of emotional security due to reduced social pressure in the virtual environment. Studies have demonstrated that VR can reduce foreign language anxiety, serving as an effective tool alongside its cognitive benefits (Kaplan-Rakowski & Gruber, 2023). Theoretically, this finding confirms that VR is not only a cognitive tool but also an effective tool that can reduce foreign language anxiety. In terms of practice, the implication is that teachers can use VR as an intervention to help students who have high levels of anxiety in speaking English, as well as a means of transitioning to real-world communication.

On the other hand, this research also reveals a number of implementational challenges that show the disparity between the potential of VR and the reality of its application in the classroom. Technical difficulties, device limitations, lack of training, as well as pedagogical obstacles in aligning VR learning with the curriculum are factors that clearly hinder the adoption of this technology. This finding contradicts theoretical optimism, such as the Technology Acceptance Model (TAM), which states that perceived benefits and ease of use determine technology adoption; however, in practice, ease of use is highly dependent on the availability of technical support and teachers' digital competencies (Man et al., 2025). This means that external factors such as infrastructure and institutional policies play a bigger role than just individual perceptions. Research indicates that institutional readiness, including support and resources, significantly influences VR adoption in educational settings (Ateş & Kölemen, 2025). Theoretically, the results of this study extend the scope of TAM by showing that VR adoption cannot be explained solely through perceived usefulness, but requires a framework that incorporates structural variables such as institutional readiness and the digital ecosystem. The practical implication is clear: educational institutions must provide adequate training, technical support, as well as funding for VR devices so that implementation is sustainable and not sporadic.

Digital culture emerged as a determining factor shaping teachers' readiness and perceptions towards the use of VR in language learning. The

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

findings show that schools with a strong digital culture are able to create an environment that supports technology adoption, gives teachers confidence, and encourages them to experiment with new approaches. This interpretation is in line with the Digital Culture Framework, which emphasizes that technological innovation does not develop individually but through the interaction between collective policies, norms, and practices in the educational environment (Alam et al., 2025). However, this study also shows that digital culture is not always a catalyst; in less supportive environments, teachers felt digital pressure and burden that decreased their readiness to use VR. Studies confirm that digital culture acts as a mediating variable in technology adoption, influencing teachers' interpretations and behaviors (Liu, 2025). This suggests that digital culture works through a dual mechanism: as both a motivator and an inhibitor, depending on the quality of institutional support available. Theoretically, this finding adds to the understanding that digital culture is not only a moderating variable in technology adoption, but also a mediating variable that influences how teachers interpret the role of technology in learning. The practical implication is that institutions should develop a holistic digital culture, including clear technology policies, continuous professional development, and the provision of collaborative spaces for teachers to share good practices.

Overall, the findings of this study indicate that the integration of VR in English language learning is a complex process, in which pedagogical, technical, affective, and cultural factors interact. Interpretation of the results suggests that VR can have a strong positive impact on students' learning experience, but its effectiveness is highly dependent on teacher readiness and institutional support. This is in line with the learning ecology approach, which emphasizes that educational innovation is only effective if all components of the learning ecosystem function harmoniously (Bhagat et al., 2025). The results of this study make a theoretical contribution by showing that successful VR integration cannot be explained through a single theoretical framework, but requires a multi-level approach that combines aspects of technology, psychology, pedagogy, and digital culture. From a practical point of view, the findings provide direction for institutional policy development, teacher training design, as well as the development of context-appropriate VR teaching materials. Thus, this research not only enriches the literature related to VR in ELT, but also provides practical guidance for schools and teachers in utilizing immersive technology more strategically and sustainably.

CONCLUSION

This study explored English language teachers' perceptions of VR integration within an evolving digital culture. The findings indicate that teachers perceived VR as having the potential to support immersive, contextualized, and communicative language learning. However, its classroom integration was constrained by limited infrastructure, insufficient institutional support and professional training, and the lack of curriculum-aligned VR materials. These findings suggest that teachers' willingness to adopt VR depends not only on its perceived pedagogical value but also on the broader institutional and instructional conditions supporting its use. Accordingly, sustainable VR

integration requires adequate infrastructure, targeted professional development, institutional commitment, and pedagogically relevant content.

This study is limited by its small, context-specific sample and its reliance primarily on teachers' reported perceptions, which restrict the transferability of the findings. It did not directly examine students' experiences, measurable learning outcomes, or changes in VR adoption over time. Future research should therefore involve more diverse educational contexts, include student perspectives and classroom-based outcome measures, and employ longitudinal or mixed-method designs to investigate how VR adoption and its educational effects develop over time.

AUTHOR STATEMENTS

All authors contributed equally to this study. **Mohammad Noor Zuhri** jointly conceptualized the study, developed the research design, conducted data collection, performed data analysis, interpreted the findings, and prepared the manuscript. **Ahmad Lizamuddin** contributed equally to reviewing and editing the manuscript. All authors read and approved the final version of the manuscript.

1

ACKNOWLEDGEMENTS

The authors would like to express their gratitude to all English teachers who participated in this study for their willingness, time, and contributions regarding the integration of Virtual Reality applications in English language learning in the context of digital culture. The authors also thank colleagues and academic partners who provided input, advice, and critical reviews during the research and the writing of this article. This research was conducted without specific funding support from government, private, or non-profit funding agencies.

REFERENCES

- Ahmad, M., & Wilkins, S. (2025). Purposive sampling in qualitative research: A framework for the entire journey. *Quality & Quantity*, 59(2), 1461–1479.
- Alam, T. M., Stoica, G. A., Sharma, K., & Özgöbek, Ö. (2025). Digital technologies in the classrooms in the last decade (2014–2023): A bibliometric analysis. *Frontiers in Education*, Volume 10. <https://doi.org/10.3389/feduc.2025.1533588>
- Ateş, H., & Kölemen, C. Ş. (2025). Integrating theories for insight: an amalgamated model for gamified virtual reality adoption by science teachers. *Education and Information Technologies*, 30(2), 2123–2153. <https://doi.org/10.1007/s10639-024-12892-9>
- Bahari, A. (2022). Affordances and challenges of teaching language skills by virtual reality: A systematic review (2010–2020). *E-Learning and Digital Media*, 19(2),

How to Cite (APA Style):

Zuhri, M.N., & Lizamuddin, A. (2026). Teachers' perceptions of integrating virtual reality applications in English language teaching within the digital culture context. *EduLite: Journal of English Education, Literature, and Culture*, 11(2), 638-651. <http://dx.doi.org/10.30659/e.11.2.638-651>

- 163–188. <https://doi.org/10.1177/20427530211036583>
- Bakk, Á. K., Bényei, J., Ballack, P., & Parente, F. (2025). Current possibilities and challenges of using metaverse-like environments and technologies in education. *Frontiers in Virtual Reality*, Volume 6. <https://doi.org/10.3389/frvir.2025.1521334>
- Bhagat, K. K., Wang, T., Kumar Jha, N., & Lampropoulos, G. (2025). 360 VR (virtual reality) Educator: Transforming teachers into interactive content creators. *Australasian Journal of Educational Technology*, 41(3 SE-Articles), 62–83. <https://doi.org/10.14742/ajet.10145>
- Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, 13(2), 201–216.
- Chand, S. P. (2025). Methods of data collection in qualitative research: Interviews, focus groups, observations, and document analysis. *Advances in Educational Research and Evaluation*, 6(1), 303–317.
- Chen, J., Dai, J., Zhu, K., & Xu, L. (2022). Effects of extended reality on language learning: A meta-analysis. *Frontiers in Psychology*, Volume 13. <https://doi.org/10.3389/fpsyg.2022.1016519>
- Dechsling, A., Vister, O. M., Johansen, T. E., Børtveit, L., Herikstad, Y., & Nordahl-Hansen, A. (2024). Implementing virtual reality in special education: Teachers' perspectives. *International Journal of Disability, Development and Education*, 1–16. <https://doi.org/10.1080/1034912X.2024.2427603>
- Ding, M. (2024). The impact of high-immersion virtual reality on EFL learners' foreign language speaking anxiety: A mixed-method approach. *ReCALL*, 36(3), 287–305. <https://doi.org/10.1017/S0958344024000156>
- Elhambakhsh, S. E., Neysani, M., & Nikbakht, A. (2024). Exploring L2 educators' training and professional development needs in VR English language learning. *Heliyon*, 10(17). <https://doi.org/10.1016/j.heliyon.2024.e36700>
- Holmes, C., & Mellanby, E. (2022). Debriefing strategies for interprofessional simulation—a qualitative study. *Advances in Simulation*, 7(1), 18. <https://doi.org/10.1186/s41077-022-00214-3>
- Jiang, J., & Fryer, L. K. (2024). The effect of virtual reality learning on students' motivation: A scoping review. *Journal of Computer Assisted Learning*, 40(1), 360–373. <https://doi.org/10.1111/jcal.12885>
- Johnson, R. B., & Christensen, L. B. (2024). *Educational research: Quantitative, qualitative, and mixed approaches*. Sage publications.
- Kaplan-Rakowski, R., & Gruber, A. (2023). The impact of high-immersion virtual reality on foreign language anxiety. *Smart Learning Environments*, 10(1), 46. <https://doi.org/10.1186/s40561-023-00263-9>
- Karcher, K., McCuaig, J., & King-Hill, S. (2024). (Self-) Reflection/ Reflexivity in sensitive, qualitative research: A scoping review. *International Journal of Qualitative Methods*, 23, 16094069241261860. <https://doi.org/10.1177/16094069241261860>
- Lim, Weng Marc. (2024). What is qualitative research? An overview and guidelines. *Australasian Marketing Journal*, 33(2), 199–229. <https://doi.org/10.1177/14413582241264619>
- Liu, N. (2025). Exploring the factors influencing the adoption of artificial intelligence

- technology by university teachers: The mediating role of confidence and AI readiness. *BMC Psychology*, 13(1), 311. <https://doi.org/10.1186/s40359-025-02620-4>
- Man, S. S., Fang, Y., Chan, A. H. S., & Han, J. (2025). VR technology acceptance for English learning amongst secondary school students: role of classroom climate and language learning anxiety. *Education and Information Technologies*, 30(4), 4131–4155. <https://doi.org/10.1007/s10639-024-12969-5>
- Meydan, C. H. & Akkaş, H. (2024). The role of triangulation in qualitative research: Converging perspectives. In A. Elhami, A. Roshan, & H. Chandan (Eds.), *Principles of Conducting Qualitative Research in Multicultural Settings* (pp. 101-132). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-3306-8.ch006>.
- Rabionet, S. (2022). How I learned to design and conduct semi-structured interviews: An ongoing and continuous journey. *The Qualitative Report*.
- Al Musawi, A. S., Al Suhi, A., & Al Mamari, Z. (2025). Exploring EFL teachers' perceptions of using virtual reality in education. *Contemporary Educational Technology*, 17(2), ep562. <https://doi.org/10.30935/cedtech/15835>
- Shonfeld, M., Cotnam-Kappel, M., Judge, M., Ng, C. Y., Ntebutse, J. G., Williamson-Leadley, S., & Yildiz, M. N. (2021). Learning in digital environments: a model for cross-cultural alignment. *Educational Technology Research and Development*, 69(4), 2151–2170. <https://doi.org/10.1007/s11423-021-09967-6>
- Wang, X., & Zhou, M. (2025). The relationships among emotions, self-efficacy, and engagement in virtual reality-assisted foreign language learning: A social cognitive theory-based study. *Perceptual and Motor Skills*, 132(1), 218–236. <https://doi.org/10.1177/00315125241297188>
- Yan, W., Lowell, V. L., & Yang, L. (2024). Developing English language learners' speaking skills through applying a situated learning approach in VR-enhanced learning experiences. *Virtual Reality*, 28(4), 167. <https://doi.org/10.1007/s10055-024-01061-5>

Conflict of Interest Statement: The authors declare that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright©2026. **Zuhri and Lizamuddin**. This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution, or reproduction is permitted that does not comply with these terms.