

Technology-Mediated Language Learning and Learner Engagement: A Systematic Literature Review of Pedagogical, Institutional, and Multilingual Perspectives

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ABSTRACT

Technology-mediated language learning has become increasingly central to contemporary language education, yet its relationship with learner engagement remains theoretically and empirically dispersed across digital, pedagogical, institutional, and multilingual domains. Guided by the PRISMA 2020 framework, this systematic literature review examines how technology-mediated tools and learning environments shape learner engagement in language education from pedagogical, institutional, and multilingual perspectives. Studies were identified from Scopus and Web of Science using a comprehensive search strategy, screened using predefined inclusion and exclusion criteria, appraised for quality, and synthesized through an integrative analytical approach. A final corpus of 21 peer-reviewed studies published between 2021 and 2026 was included. The findings revealed four interrelated themes: technology-mediated language learning modalities, learner engagement and motivational dynamics, pedagogical and institutional support systems, and multilingual/cross-linguistic perspectives. Overall, the review demonstrates that technology alone is insufficient to sustain engagement; effective language learning requires alignment between digital tools, learner motivation, pedagogical design, institutional support, and multilingual resources.

Keywords: Technology-mediated language learning, Learner engagement, Language learning motivation, Pedagogical and institutional support, Multilingual and cross-linguistic learning

INTRODUCTION

1.1 Background of The Study

Technology-mediated language learning has become increasingly important in contemporary education, particularly as digital platforms, online learning environments, teletandem exchanges, gamified learning, and blended pedagogies are now widely used to support language development. In this review, language learning is understood as a multidimensional process shaped by technology, learner motivation, pedagogical design, institutional support, and multilingual resources. The reviewed literature shows that digital tools can support interaction, feedback, collaboration, and authentic language practice when they are meaningfully integrated into teaching and learning. The study is also theoretically anchored in Sociocultural Theory, the L2 Motivational Self

System, the Community of Inquiry Framework, and Translanguaging Theory, which together explain how learning is mediated through tools, motivation, social interaction, institutional structures, and multilingual repertoires.

1.2 Statement of Problem

Although technology has created new opportunities for language learning, the effective use of digital tools does not automatically lead to stronger learner engagement or improved language outcomes. The document shows that engagement is shaped by various internal and external factors, including learner confidence, motivation, shyness, teacher support, classroom interaction, institutional structures, and multilingual learning opportunities. Previous studies included in the review also indicate that online learning may contribute to disengagement when technology is not supported by meaningful interaction, appropriate pedagogy, and responsive institutional systems. Therefore, there is a need to examine how technology-mediated language learning operates together with learner engagement, pedagogical practices, institutional support, and multilingual learning contexts.

1.3 Research Gap

Despite growing research on language learning and engagement, the existing literature remains dispersed across separate areas, including digital learning, motivation, pedagogy, institutional support, and multilingual education. The 21 studies reviewed in the document were categorized into four themes: Technology-Mediated Language Learning, Learner Engagement and Motivation, Pedagogical and Institutional Support, and Multilingual and Cross-Linguistic Learning. However, limited synthesis has integrated these perspectives within a single systematic literature review. This gap justifies the present SLR, which uses the PRISMA framework to identify, screen, appraise, and synthesize studies from Scopus and Web of Science. By connecting technology, engagement, pedagogy, institutions, and multilingualism, this review provides a more comprehensive understanding of how language learning engagement is developed and sustained in contemporary educational contexts.

1.4 Research Questions

Research questions are important to a systematic literature review (SLR). The questions provide the foundation and direction for the entire review process. A well-defined research question ensures that the literature search is exhaustive and systematic, covering all relevant studies that address key aspects of the topic (Kitchenham, 2007). The research questions in this SLR are formulated using the PICO framework. This framework is a mnemonic style used to formulate research questions, particularly in qualitative research, proposed by Lockwood et al. (2015). PICO stands for Population, Interest, and Context. This SLR is done to answer the four research questions below;

RQ1

How are technology-mediated tools and digital learning environments used to support language learning among learners and teachers in formal educational contexts?

RQ2

What factors influence learner engagement and motivation in language learning contexts?

RQ3

How do pedagogical practices and institutional support contribute to language learning engagement and participation?

RQ4

How do multilingual and cross-linguistic factors shape learners' language learning experiences, motivation, and engagement?

LITERATURE REVIEW

2.1 Theoretical Framework: Technology-Mediated Language Learning and Learner Engagement: A Systematic Literature Review of Pedagogical, Institutional, and Multilingual Perspectives

2.1.1 Sociocultural Theory by Vygotsky (1978) that supports Technology-Mediated Language Learning

Sociocultural Theory by Vygotsky (1978) provides a strong theoretical foundation for understanding technology-mediated language learning because it views learning as a socially mediated process shaped by interaction, cultural tools, and supportive learning environments. According to Vygotsky, learners develop higher mental functions through social interaction and guidance from more knowledgeable others, such as teachers, peers, or learning communities. In technology-mediated language learning, digital tools such as online platforms, video conferencing, teletandem exchanges, learning management systems, and collaborative writing tools function as mediating artefacts that support communication and language development. These tools create opportunities for learners to interact, negotiate meaning, receive feedback, and participate in authentic language practices beyond the physical classroom. The concept of the Zone of Proximal Development is also relevant because technology can provide scaffolding through teacher feedback, peer collaboration, automated support, and access to learning resources. Therefore, technology is not merely a delivery tool, but a social and cognitive mediator that enhances learners' engagement, autonomy, and language learning development within interactive digital environments (Vygotsky, 1978).

2.1.2 L2 Motivational Self System by Dörnyei (2005) that supports Learner Engagement and Motivation

L2 Motivational Self System by Dörnyei (2005) provides a useful theoretical lens for explaining learner engagement and motivation in language learning. This theory suggests that learners' motivation is strongly shaped by their imagined future language identities, particularly the Ideal L2 Self, the Ought-to L2 Self, and the L2 Learning Experience. The Ideal L2 Self refers to the learner's desired future identity as a successful language user, while the Ought-to L2 Self reflects external expectations, such as family, teachers, or academic requirements. The L2 Learning Experience focuses on learners' immediate classroom experiences, including teaching methods, learning environment, peer interaction, and feedback. In relation to learner engagement, this theory explains why students are more likely to participate actively, persist in learning tasks, and invest effort when they can see a meaningful connection between language learning and their future goals. In technology-mediated language learning, digital tools can further strengthen motivation by providing interactive, personalized, and authentic learning experiences that help learners visualize and move toward their desired language selves. Therefore, Dörnyei's theory supports the understanding of learner engagement as both identity-driven and context-dependent (Dörnyei, 2005).

2.1.3 Community of Inquiry (CoI) Framework by Garrison, Anderson, and Archer (2000) that supports Pedagogical and Institutional Support

The Community of Inquiry (CoI) Framework by Garrison, Anderson, and Archer (2000) provides a useful theoretical foundation for understanding pedagogical and institutional support in language learning, particularly in online, blended, and technology-supported environments. The framework explains effective learning through three interconnected forms of presence: teaching presence, social presence, and cognitive presence. Teaching presence refers to the design, facilitation, and direction of learning activities, which highlights the important role of teachers, curriculum planning, feedback, and institutional learning structures. Social presence emphasizes learners' ability to interact, collaborate, and build meaningful relationships within a supportive learning community. Cognitive presence focuses on learners' ability to construct meaning through reflection, discussion, and inquiry. In relation to pedagogical and institutional support, the CoI framework shows that successful language learning depends not only on individual learner effort, but also on well-designed instruction, active teacher facilitation, meaningful interaction, and supportive institutional systems. Therefore, this framework is highly relevant for analysing how universities, teachers, and learning environments support learner engagement, participation, and language development (Garrison, Anderson, & Archer, 2000).

2.1.4 Translanguaging Theory by Williams (1994); García and Li Wei (2014) that supports Multilingual and Cross-Linguistic Learning

Translanguaging Theory, first introduced by Williams (1994) and later expanded by García and Li Wei (2014), provides a strong theoretical foundation for understanding multilingual and cross-linguistic learning. Translanguaging views multilingual learners' languages not as separate systems, but as part of one integrated linguistic repertoire that learners use flexibly to communicate, construct meaning, and support learning. In language learning contexts, this theory supports the idea that students can draw on their existing linguistic knowledge when learning an additional language. Rather than treating the first language, second language, or third language as isolated, translanguaging recognizes cross-linguistic connections as valuable learning resources. This is especially relevant in multilingual classrooms where learners compare vocabulary, grammar, pronunciation, and meaning across languages. It also supports identity development because learners are allowed to use their full linguistic background as part of the learning process. Therefore, Translanguaging Theory helps explain how multilingual learners actively use their linguistic resources to enhance comprehension, participation, motivation, and language development across different language-learning contexts (Williams, 1994; García & Li Wei, 2014).

2.2 Conceptual Framework

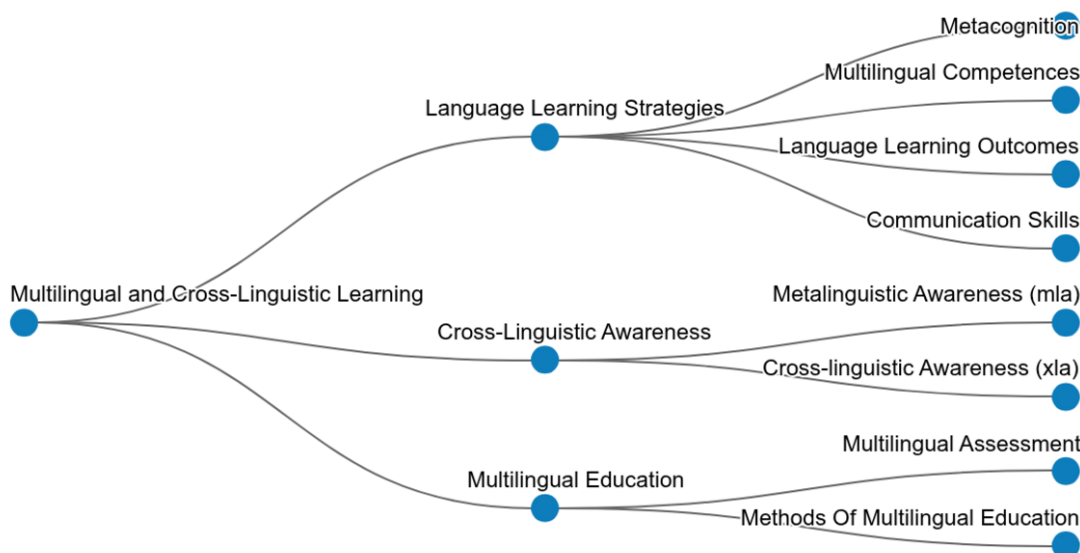


Figure 1 Conceptual Framework

The conceptual framework for “Technology-Mediated Language Learning and Learner Engagement: A Systematic Literature Review of Pedagogical, Institutional, and Multilingual Perspectives” is developed from the final 21 studies included after the PRISMA-based screening process. As shown in the diagram, records were identified from Scopus and Web of Science, screened according to inclusion and exclusion criteria, and reduced to 21 studies for qualitative analysis. These studies are organized into four interconnected themes: technology-mediated language learning, learner engagement and motivation, pedagogical and institutional support, and multilingual and cross-linguistic learning. The framework assumes that language learning is shaped by the interaction between digital tools, learner-related factors, teaching practices, institutional conditions, and multilingual resources.

The framework is anchored by four main theories. Sociocultural Theory explains technology-mediated language learning by viewing digital platforms, teletandem, online classrooms, and collaborative tools as mediating artefacts that support interaction, scaffolding, and language development (Vygotsky, 1978). L2 Motivational Self System supports learner engagement and motivation by explaining how learners' ideal language selves, external expectations, and learning experiences influence their effort and participation (Dörnyei, 2005). Community of Inquiry Framework explains pedagogical and institutional support through teaching presence, social presence, and cognitive presence, showing how structured learning environments

promote engagement (Garrison, Anderson, & Archer, 2000). Finally, Translanguaging Theory supports multilingual and cross-linguistic learning by recognizing learners' full linguistic repertoires as resources for meaning-making, identity development, and language learning (Williams, 1994; García & Li Wei, 2014). Together, these theories provide an integrated framework for analysing how technology, motivation, pedagogy, institutions, and multilingual practices influence language learning engagement.

MATERIAL AND METHODS

The present systematic literature review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, which is widely recognized for enhancing transparency, methodological rigor, and reproducibility in evidence synthesis (Page et al., 2021). PRISMA provides a structured protocol for identifying, screening, evaluating, and including relevant studies, thereby ensuring that the review process is conducted systematically and reported comprehensively. In this SLR, the authors functioned as independent researchers who collaboratively examined and analysed articles aligned with the review title, Technology-Mediated Language Learning and Learner Engagement: A Systematic Literature Review of Pedagogical, Institutional, and Multilingual Perspectives. Two major scholarly databases, Scopus and Web of Science, were selected as the primary sources for data retrieval because of their extensive coverage, multidisciplinary indexing, and credibility in academic research. The use of these databases strengthened the comprehensiveness of the search process and increased the likelihood of identifying high-quality, peer-reviewed studies relevant to technology-mediated language learning, learner engagement and motivation, pedagogical and institutional support, and multilingual and cross-linguistic learning.

Following the PRISMA framework, the review process was organized into five main stages: identification, screening, eligibility, data abstraction and analysis, and quality appraisal. During the identification stage, relevant records were retrieved from Scopus and Web of Science using predefined search strategies. The screening stage involved removing irrelevant records based on predetermined inclusion and exclusion criteria, such as publication type, language, year of publication, and relevance to the review scope. In the eligibility stage, the remaining studies were assessed in greater depth to determine their suitability for inclusion in the final review. Subsequently, data abstraction and analysis were conducted to extract key information, including authorship, publication year, research focus, methodology, findings, and thematic relevance. Finally, quality appraisal was carried out to evaluate the methodological strength and relevance of the selected studies. This rigorous and transparent process ensured that the final body of literature was systematically selected, critically evaluated, and meaningfully synthesized to support reliable conclusions and future research directions.

3.1 Identification

In accordance with the PRISMA framework, the identification phase served as the initial and essential stage of the systematic literature review process. This phase was conducted to ensure comprehensive coverage of relevant literature while minimizing the risk of selection bias. In this study, a structured search strategy was applied using two major bibliographic databases, Scopus and Web of Science (WoS), which were selected due to their broad multidisciplinary coverage, rigorous indexing standards, and strong representation of peer-reviewed scholarly publications. The search was guided by predefined keywords related to the focus of the review, including terms associated with language learning, learner engagement, technology-mediated learning, pedagogical support, and multilingual learning. The search process produced 50 records from Scopus and 100 records from Web of Science, resulting in a total of 150 records before screening and eligibility assessment.

The use of both Scopus and Web of Science strengthened the methodological rigor of the review by reducing database-specific bias and increasing the likelihood of capturing studies from diverse research traditions, educational contexts, and geographical settings. The larger number of records retrieved from Web of Science suggests its strong coverage of studies related to language learning, education, and engagement, while Scopus contributed additional multidisciplinary sources relevant to the review scope. The identification process also followed the same predefined criteria applied throughout the review, where only peer-reviewed journal articles written in English and published between 2021 and 2026 were considered for inclusion. Publications such as book chapters, conference proceedings, in-press articles, non-English papers, and studies outside the

review focus were excluded during the subsequent screening stage. Overall, this transparent and systematic identification process provided a strong foundation for the screening, eligibility, data abstraction, and quality appraisal stages, ensuring that the final selection of studies was relevant, current, and methodologically appropriate.

Table 1 The Search String

Scopus	TITLE-ABS-KEY (("class participation" OR "student engagement" OR "classroom participation" OR "active learning") AND ("French" OR "French as a foreign language" OR "French as a second language") AND ("higher education" OR university OR college OR "tertiary education"))
Web of Science	TITLE-ABS-KEY (("class participation" OR "student engagement" OR "classroom participation" OR "active learning") AND ("French" OR "French as a foreign language" OR "French as a second language") AND ("higher education" OR university OR college OR "tertiary education")) Extracted August 2026

3.1.1 Clarification on Search Strategy and Scope Alignment:

While the initial database queries utilized broad index terms focused on participation, engagement, and language learning contexts to capture a wide baseline corpus, the subsequent full-text screening process rigorously filtered studies for technology-mediated tools, pedagogical/institutional support structures, and multilingual dimensions aligned with RQ1–RQ4. Studies retrieved via broader keywords (e.g., active learning, student engagement) were systematically evaluated to confirm whether technology mediation and cross-linguistic/multilingual contexts were empirically or theoretically examined, resulting in the final corpus of 21 targeted articles.

3.2 Screening

During the screening stage of the systematic literature review, all potentially relevant records were assessed to determine their alignment with the four research questions and the predefined scope of the study. This stage aimed to refine the initial search results by applying clear inclusion and exclusion criteria and by checking for duplicate records. A total of 150 records were initially identified from Scopus (n = 50) and Web of Science (n = 100). After screening, 96 records were excluded because they did not meet the established criteria, including non-English publications, studies published before 2021, book chapters, conference proceedings, in-press articles, and publications outside the focus of the review. This process resulted in 54 articles being retained for further assessment, comprising 19 articles from Scopus and 35 articles from Web of Science, as shown in Figure 2. The main inclusion criteria prioritized peer-reviewed journal articles published in English between 2021 and 2026 that provided relevant empirical or conceptual insights into the review themes. Materials such as book reviews, book series, meta-syntheses, meta-analyses, conference papers, and unrelated book chapters were excluded to maintain the quality and relevance of the evidence base. A duplication check was also conducted, and no duplicate records were identified across the two databases. Overall, this systematic and criteria-driven screening process ensured that only relevant, recent, and academically credible studies proceeded to the eligibility and analysis stages.

3.3 Eligibility

During the eligibility assessment, full-text versions of 54 studies retained from the screening phase were thoroughly evaluated against the established inclusion and exclusion criteria. Articles were reviewed to confirm empirical grounding, relevance to technology-mediated language learning, and direct alignment with the review's research questions. Following this assessment, 33 articles were excluded due to lack of direct relevance to the research questions, conceptual mismatches, or non-empirical designs. Ultimately, a total of 21 peer-reviewed studies met all eligibility criteria and were selected for qualitative synthesis (see Figure 2 and Table 4).

Table 2 The Selection Criterion

Criterion	Inclusion	Exclusion
Language	English, French	Non-English and non-French studies
Timeline	2021 – 2026	Published prior to 2021
Literature type	Peer-reviewed journal articles	Books, book chapters, conference proceedings, editorials
Publication Stage	Final publication	Article in press / ahead of print
Subject Area	Language Education / Applied Linguistics / Educational Technology	Fields unrelated to language education

3.4 Data Abstraction and Analysis

An integrative analytical approach was employed in this study to examine and synthesize evidence across diverse methodological designs, including quantitative, qualitative, and mixed-method studies. This approach enabled the researchers to capture a comprehensive understanding of the selected literature and to identify patterns across the included studies. A total of 21 publications were carefully reviewed and analysed to extract relevant information aligned with the study's research questions and thematic focus. The authors examined each article in terms of its research objectives, methodological approach, key findings, and relevance to the four major themes: technology-mediated language learning, learner engagement and motivation, pedagogical and institutional support, and multilingual and cross-linguistic learning. Theme development was conducted collaboratively, with the authors comparing interpretations, discussing emerging patterns, and resolving any differences through consensus. To strengthen transparency and analytical rigor, a record of the data analysis process was maintained, including key observations, coding decisions, and thematic reflections. This collaborative review process helped ensure consistency, clarity, and relevance in the development of themes and subthemes. The expert review phase further enhanced the validity of the thematic structure by confirming that each theme was meaningful, well-supported by the evidence, and appropriate to the objectives of the review (see Appendix 1).

3.5 Quality of Appraisal

According to Kitchenham and Charters (Kitchenham, 2007), the researchers need to assess the quality of the research chosen. The next stage is applying the quality assessment suggested by Abouzahra et al., (2020), which consists of six questions complying with a scoring procedure for evaluating each criterion. The possible ratings are "Yes" (Y) with a score of 1 if the criterion is fully met, "Partly" (P) with a score of 0.5 if the criterion is somewhat met but contains some gaps or shortcomings, and "No" (N) with a score of 0 if the criterion is not met at all.

Table 3 Possible ratings for 6 questions by Abouzahra et al., (2020)

No	Question
QA1	Is the purpose of the study clearly stated?
QA2	Is the interest and the usefulness of the work clearly presented?
QA3	Is the study methodology clearly established?
QA4	Are the concepts of the approach clearly defined?
QA5	Is the work compared and measured with other similar work?
QA6	Are the limitations of the work clearly mentioned?

Each reviewer independently assessed the study according to these criteria. To establish inter-rater consistency, the scores assigned by the three reviewers were averaged to compute a consensus quality score out of a maximum potential total of 6.0 (100%). Disagreements among raters were resolved through collaborative discussion. Studies scoring 60% or higher (≥ 3.6 out of 6.0) were categorized as moderate to high quality. Studies scoring slightly below this threshold (e.g., PS15 and PS19, which scored 3.5 / 58.3%) were retained selectively due to their unique qualitative contribution to understanding specific classroom dynamics, though their reporting limitations are explicitly acknowledged in the qualitative synthesis. The detailed quality scores are presented in Table 4.

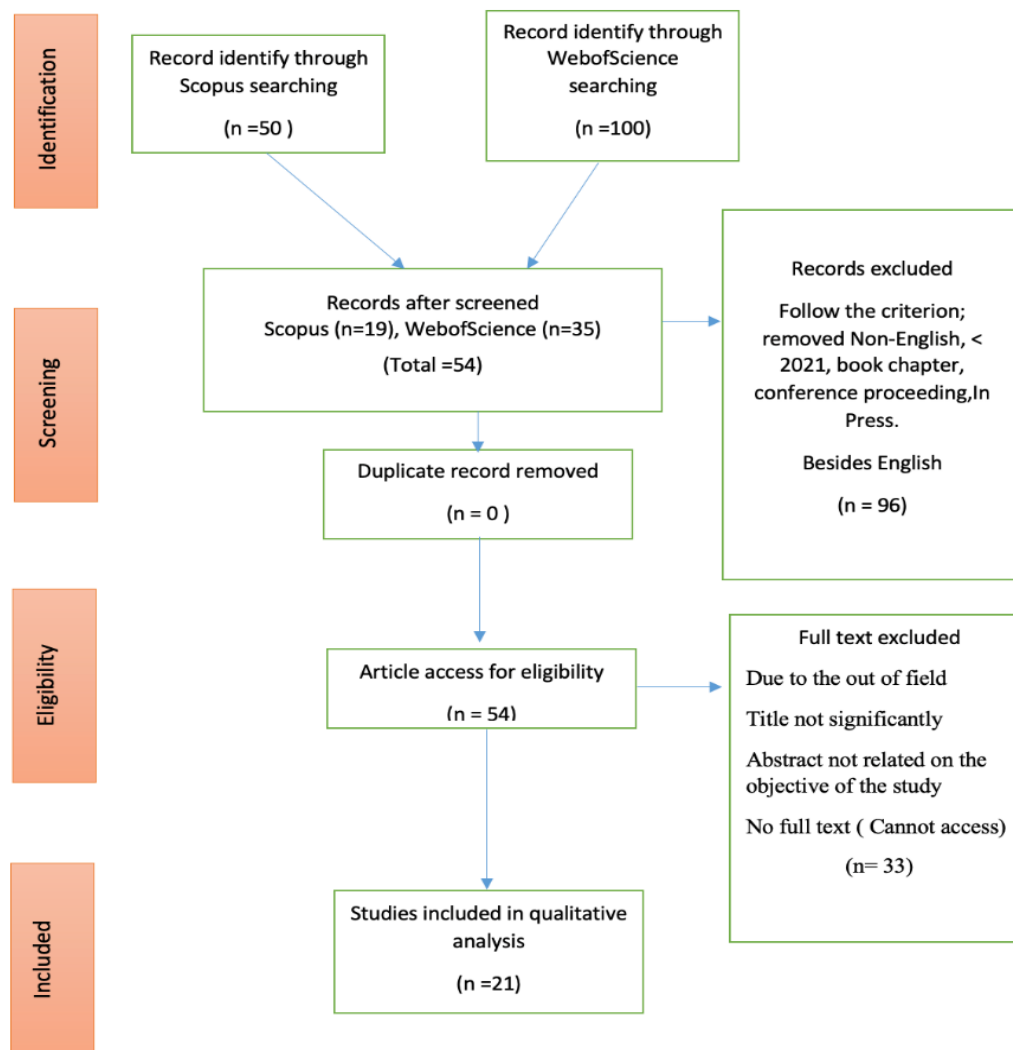


Figure 2 Flow diagram of the proposed searching study (Moher D, Liberati A, Tetzlaff J, 2009)

RESULT AND FINDING

4.1 Quality of Assessment

Table 4 presents the quality assessment results for the selected primary studies. Overall, the reviewed articles demonstrated varying levels of methodological quality. Studies classified as high quality ($\geq 80\%$) formed the majority and were generally characterized by clearly stated objectives, well-established methodologies, and strong relevance to the review focus. Studies categorized as moderate quality (60-79%) were mainly conceptual, descriptive, or exploratory in nature, with adequate but less comprehensive methodological reporting. Meanwhile, studies rated as lower quality ($< 60\%$) were mostly survey-based or exploratory abstracts, often with limited methodological detail, insufficient comparison with related work, or minimal discussion of limitations. This quality distribution indicates that most of the included studies provide a reliable foundation for synthesis, although some require careful interpretation due to methodological or reporting constraints.

Table 4 Quality of Assessment

Study	Author(s) & Year	Article Title	QA1	QA2	QA3	QA4	QA5	QA6	Total Mark	Percentage (%)
PS1	Horgues & Tardieu (2025)	English/French Teletandem Programmes at University: Institutional Structure and Student Engagement	Y	Y	Y	Y	P	N	4.5	75.0
PS2	Benabbes, Alshbeekat, Alghazo & Emaish (2025)	Unveiling Teacher Resilience in French Language Distance Teaching: A Case Study	Y	Y	Y	Y	N	N	4.0	66.7
PS3	Elomari (2026)	The Impact of Digital Co-Creation on French Learning: A Case Study with the Littémath Project	Y	Y	Y	Y	P	N	4.5	75.0
PS4	Plantade-Gipch et al. (2023)	Influence of Performance Goals, Mastery Avoidance, and Shyness on Engagement in University Studies	Y	Y	Y	Y	P	N	4.5	75.0
PS5	Anane (2022)	Gamified Flipped Learning in a French Foreign Language Class: Efficiency and Student Perception	Y	Y	Y	Y	Y	N	5.0	83.3
PS6	Branchu & Flaureau (2022)	I'm Not Listening to My Teacher, I'm Listening to My Computer: Online Learning, Disengagement, and the Impact of COVID-19 on French University Students	Y	Y	Y	Y	P	N	4.5	75.0
PS7	Messaoui, Bächtold, Barbe Asensio & Ngoua Ondo (2026)	Who Uses Active Learning Classrooms and How? Profiling University Teachers' Routine Practices and Perceptions	Y	Y	Y	Y	Y	Y	6.0	100.0

PS8	Adelson & Keen (2023)	F2F Versus Online: Student Perceptions of Foreign Language Learning in the Time of COVID-19	Y	Y	Y	Y	Y	N	5.0	83.3
PS9	Guo, Xu & Chen (2025)	Learner Engagement in the Tertiary EFL Classroom: Trajectories and Contributing Factors	Y	Y	Y	Y	P	N	4.5	75.0
PS10	Pastena (2026)	Social Integration and Language Learning at Two European Universities: Students Perceptions of Institutional and Student-Led Opportunities	Y	Y	Y	Y	Y	N	5.0	83.3
PS11	Alzaanin (2023)	Uncovering University Teachers Perspectives: Conceptualizations, Factors, and Perceptions of Second Language Learner Engagement	Y	Y	Y	Y	P	N	4.5	75.0
PS12	Fuentesal-García et al. (2025)	Communicative Self-Confidence and Motivation: An Educational Experience of Linguistic Immersion and Leisure in Nature	Y	Y	Y	Y	Y	N	5.0	83.3
PS13	Sulis (2022)	Engagement in the Foreign Language Classroom: Micro and Macro Perspectives	Y	Y	Y	Y	P	N	4.5	75.0
PS14	Goebel, Schmelter, Neuber & Struck (2025)	Appreciation of Multilingual Teaching Activities by Secondary School Students in Germany: Findings from a Quasi-Experimental Intervention Study on Teaching French	Y	Y	Y	Y	Y	P	5.5	91.7

PS15	Peng (2021)	The Academic Motivation and Engagement of Students in English as a Foreign Language Classes: Does Teacher Praise Matter?	Y	Y	P	Y	P	N	3.5	58.3
PS16	Mosquera (2022)	Learning Needs of English and French Students from a Modern Languages Program at a Colombian University	Y	Y	Y	Y	N	N	4.0	66.7
PS17	Burksaitiene & Sliogeriene (2021)	Lithuanian Undergraduate Students Approaches to Learning English for Specific Purposes	Y	Y	Y	Y	N	N	4.0	66.7
PS18	Mai, Ngoc & Thao (2024)	Factors Hindering Student Participation in English-Speaking Classes: Student and Lecturer Perceptions	Y	Y	Y	Y	Y	N	5.0	83.3
PS19	Kasumi & Xhemaili (2023)	Student Motivation and Learning: The Impact of Collaborative Learning in English as Foreign Language Classes	Y	Y	Y	P	N	N	3.5	58.3
PS20	Zhou, Zheng, Zhou & Gan (2026)	Understanding Multilingual Student Motivation Through Ideal Self and International Posture: A Study of Simultaneous Language Learning University Programmes in China	Y	Y	Y	Y	P	N	4.5	75.0
PS21	Wang & Zhu (2024)	The Contribution of Linguistic Distance to L3 Learning Motivation: A Cross-L2 Comparison of University English as a Foreign Language Learners	Y	Y	Y	Y	Y	N	5.0	83.3

4.2 Themes (formed from Table 4)

Table 5 Analysis for Themes

Theme	Theme Name	Number of Articles
Theme 1	Technology-Mediated Language Learning	6
Theme 2	Learner Engagement and Motivation	6
Theme 3	Pedagogical and Institutional Support	5
Theme 4	Multilingual and Cross-Linguistic Learning	4
Total		21

The table summarizes the thematic distribution of the 21 articles included in the systematic literature review. The studies were grouped into four major themes according to their main focus. Theme 1, Technology-Mediated Language Learning, contains six articles and represents studies that examine digital tools, online learning, teletandem, flipped learning, gamification, and other technology-supported approaches in language education. Theme 2, Learner Engagement and Motivation, also includes six articles, showing that student participation, motivation, confidence, and psychological factors are major concerns in language learning research. Theme 3, Pedagogical and Institutional Support, consists of five articles that focus on the role of teachers, classroom practices, institutional structures, learning environments, and support systems in promoting student engagement and learning success. Finally, Theme 4, Multilingual and Cross-Linguistic Learning, includes four articles that address multilingual education, linguistic diversity, L3 learning, and cross-linguistic influences. Overall, the table indicates that the reviewed literature gives strong attention to technology use and learner engagement, while also recognizing the importance of institutional support and multilingual learning contexts.

4.2.1 Theme 1: Technology-Mediated Language Learning

Study ID	Author(s) & Year	Article Title
PS1	Horgues & Tardieu (2025)	<i>English/French Teletandem Programmes at University: Institutional Structure and Student Engagement</i>
PS2	Benabbes, Alshbeekat, Alghazo & Emaish (2025)	<i>Unveiling Teacher Resilience in French Language Distance Teaching: A Case Study</i>
PS3	Elomari (2026)	<i>The Impact of Digital Co-Creation on French Learning: A Case Study with the "Littémath" Project</i>
PS5	Anane (2022)	<i>Gamified Flipped Learning in a French Foreign Language Class: Efficiency and Student Perception</i>
PS6	Branchu & Flaureau (2022)	<i>"I'm Not Listening to My Teacher, I'm Listening to My Computer": Online Learning, Disengagement, and the Impact of COVID-19 on French University Students</i>
PS8	Adelson & Keen (2023)	<i>F2F Versus Online: Student Perceptions of Foreign Language Learning in the Time of COVID-19</i>

The literature on technology-mediated language learning demonstrates that digital integration supports language development primarily when embedded within structured pedagogical designs. A cross-analysis of included studies reveals a clear distinction between structured interactive formats and passive online delivery. On one hand, studies examining interactive technologies—such as teletandem exchanges (Horgues & Tardieu, 2025), digital co-creation projects like "Littémath" (Elomari, 2026), and gamified flipped instruction (Anane,

2022)—report positive outcomes in student participation, communicative confidence, and performance. These findings align in demonstrating that technology acts as an effective mediating artifact (Vygotsky, 1978) when it facilitates active collaboration and authentic task engagement. On the other hand, research investigating emergency distance teaching and emergency online transitions (Adelson & Keen, 2023; Branchu & Flaureau, 2022) highlights substantial risks of student disengagement and transactional distance when digital platforms replace face-to-face instruction without adequate pedagogical re-design. Furthermore, Benabbes et al. (2025) emphasize that teacher resilience and digital readiness are decisive institutional factors in determining whether technology-mediated environments foster engagement or exacerbate learner isolation.

4.2.2 Theme 2: Learner Engagement and Motivation

Study ID	Author(s) & Year	Article Title
PS4	Plantade-Gipch et al. (2023)	<i>Influence of Performance Goals, Mastery Avoidance, and Shyness on Engagement in University Studies</i>
PS9	Guo, Xu & Chen (2025)	<i>Learner Engagement in the Tertiary EFL Classroom: Trajectories and Contributing Factors</i>
PS11	Alzaanin (2023)	<i>Uncovering University Teachers' Perspectives: Conceptualizations, Factors, and Perceptions of Second Language Learner Engagement</i>
PS12	Fuentesal-García et al. (2025)	<i>Communicative Self-Confidence and Motivation: An Educational Experience of Linguistic Immersion and Leisure in Nature</i>
PS13	Sulis (2022)	<i>Engagement in the Foreign Language Classroom: Micro and Macro Perspectives</i>
PS15	Peng (2021)	<i>The Academic Motivation and Engagement of Students in English as a Foreign Language Classes: Does Teacher Praise Matter?</i>

Synthesizing the corpus regarding engagement reveals that learner participation in language learning is a dynamic, multidimensional phenomenon driven by an interplay of internal psychological states and external feedback mechanisms. Studies focusing on individual differences highlight that performance anxiety, mastery avoidance, and shyness function as significant internal constraints on classroom engagement (Plantade-Gipch et al., 2023), whereas communicative self-confidence developed through immersive, experiential settings substantially enhances intrinsic motivation (Fuentesal-García et al., 2025). From a temporal perspective, longitudinal findings by Guo et al. (2025) and conceptualizations by Sulis (2022) demonstrate that engagement is not static; it fluctuates across micro-level classroom tasks and macro-level institutional trajectories. External instructional support critically mediates these motivational trajectories. For instance, Peng (2021) establishes a direct positive link between targeted teacher praise and enhanced student engagement in EFL settings, while Alzaanin (2023) shows that instructors' conceptualizations of engagement directly influence their choice of supportive or restrictive classroom strategies.

4.2.3 Theme 3: Pedagogical and Institutional Support

Study ID	Author(s) & Year	Article Title
PS7	Messaoui, Bächtold, Barbe Asensio & Ngoua Ondo (2026)	<i>Who Uses Active Learning Classrooms and How? Profiling University Teachers' Routine Practices and Perceptions</i>
PS10	Pastena (2026)	<i>Social "Integration" and Language Learning at Two European Universities: Students' Perceptions of Institutional and Student-Led Opportunities</i>

PS16	Mosquera (2022)	<i>Learning Needs of English and French Students from a Modern Languages Program at a Colombian University</i>
PS18	Mai, Ngoc & Thao (2024)	<i>Factors Hindering Student Participation in English-Speaking Classes: Student and Lecturer Perceptions</i>
PS19	Kasumi & Xhemaili (2023)	<i>Student Motivation and Learning: The Impact of Collaborative Learning in English as Foreign Language Classes</i>

The synthesis of pedagogical and institutional factors indicates that sustained learner engagement requires structural alignment between institutional infrastructure, active learning spaces, and teacher practices. At the classroom level, active learning strategies and collaborative tasks consistently foster higher learner involvement compared to traditional teacher-centered instruction (Kasumi & Xhemaili, 2023; Messaoui et al., 2026). However, Messaoui et al. (2026) observe that the effective utilization of active learning classrooms relies heavily on institutional provision of continuous professional development for instructors. Where structural support is lacking, student participation drops significantly due to affective, linguistic, and socio-cultural barriers (Mai et al., 2024). At the macro-level, institutional integration opportunities and curriculum design tailored to student needs are critical for fostering social integration and sustained commitment (Mosquera, 2022; Pastena, 2026).

4.2.4 Theme 4: Multilingual and Cross-Linguistic Learning

Study ID	Author(s) & Year	Article Title
PS14	Goebel, Schmelter, Neuber & Struck (2025)	<i>Appreciation of Multilingual Teaching Activities by Secondary School Students in Germany: Findings from a Quasi-Experimental Intervention Study on Teaching French</i>
PS17	Burksaitiene & Sliogeriene (2021)	<i>Lithuanian Undergraduate Students' Approaches to Learning English for Specific Purposes</i>
PS20	Zhou, Zheng, Zhou & Gan (2026)	<i>Understanding Multilingual Student Motivation Through Ideal Self and International Posture: A Study of Simultaneous Language Learning University Programmes in China</i>
PS21	Wang & Zhu (2024)	<i>The Contribution of Linguistic Distance to L3 Learning Motivation: A Cross-L2 Comparison of University English as a Foreign Language Learners</i>

The literature on multilingual dimensions emphasizes that leveraging learners' existing linguistic repertoires serves as a major catalyst for language learning engagement. Quasi-experimental evidence from Goebel et al. (2025) reveals that secondary students exhibit higher appreciation and engagement when multilingual teaching activities explicitly incorporate their plurilingual backgrounds. Similarly, studies grounded in L3 acquisition frameworks demonstrate that motivation is strongly conditioned by linguistic distance between known languages and the target language (Wang & Zhu, 2024), as well as by learners' dynamic constructs of their "Ideal Multilingual Self" and international posture (Zhou et al., 2026). Complementing these findings, Burksaitiene and Sliogeriene (2021) show that deep learning approaches in specialized language domains are enhanced when students actively apply cross-linguistic strategies, reinforcing the core premise of Translanguaging Theory (García & Li Wei, 2014).

CONCLUSION

This systematic literature review concludes that technology-mediated language learning and learner engagement are multidimensional phenomena shaped by the interaction of digital tools, learner motivation, pedagogical practices, institutional support, and multilingual resources. Based on the 21 studies included after

the PRISMA-guided selection process, the review demonstrates that technology alone does not automatically enhance language learning. Instead, effective outcomes depend on how digital platforms, online learning environments, teletandem, gamified flipped learning, and collaborative tools are pedagogically designed and institutionally supported. The review further shows that both internal factors, such as confidence, motivation, and language identity, and external factors, such as teacher support, classroom interaction, institutional structures, and multilingual learning opportunities, influence learner engagement. Overall, the findings highlight the need for an integrated approach that connects technology, engagement, pedagogy, institutional responsibility, and multilingual awareness in contemporary language education.

4.3 Summary of Findings

The review identified four major themes: Technology-Mediated Language Learning, Learner Engagement and Motivation, Pedagogical and Institutional Support, and Multilingual and Cross-Linguistic Learning. Studies such as Horgues and Tardieu (2025), Anane (2022), Branchu and Flaureau (2022), and Adelson and Keen (2023) show that online learning, teletandem, flipped learning, and gamification can support language development when they promote interaction and meaningful participation. Regarding engagement, Guo, Xu, and Chen (2025), Sulis (2022), Plantade-Gipch et al. (2023), and Peng (2021) indicate that motivation, confidence, shyness, teacher praise, and classroom experience shape learners' participation over time. The review also found that pedagogical and institutional support are central to student engagement, as shown by Messaoui et al. (2026), Pastena (2026), Mosquera (2022), Mai, Ngoc, and Thao (2024), and Kasumi and Xhemaili (2023). Finally, Goebel et al. (2025), Burksaitiene and Sliogeriene (2021), Zhou et al. (2026), and Wang and Zhu (2024) demonstrate that multilingual identity, linguistic diversity, and cross-linguistic awareness contribute to motivation and language learning development.

4.4 Implications and Suggestions for Future Research

The findings have important implications for language educators, curriculum designers, and higher education institutions. First, language learning technologies should be used as interactive and collaborative learning spaces rather than as simple content-delivery tools. Second, teachers should design activities that support learner autonomy, motivation, peer interaction, and meaningful communication. Third, institutions need to provide stronger support systems, including teacher training, flexible digital infrastructure, active learning spaces, and inclusive policies that encourage student participation. The findings also suggest that multilingual learners' existing linguistic repertoires should be treated as learning resources rather than barriers. Therefore, effective language learning requires coordinated support from teachers, institutions, digital environments, and multilingual pedagogical practices.

Future research should conduct more longitudinal studies to examine how learner engagement develops over time in technology-mediated, blended, and online language learning environments. Comparative studies across different languages, institutions, and countries are also needed to better understand how digital tools influence engagement in diverse educational contexts. Future studies should also investigate multilingual and cross-linguistic learning, particularly how learners use their first, second, and additional languages to support motivation, comprehension, and participation. More empirical work is also needed on the role of institutional support, teacher training, and active learning spaces in sustaining learner engagement. Finally, future systematic reviews may expand the scope by including broader databases, non-English publications, and more diverse methodological designs to provide a more comprehensive understanding of technology-mediated language learning and learner engagement.

4.5 Limitations of the Present Review

While this systematic literature review provides comprehensive insights into technology-mediated language learning and learner engagement, several methodological limitations must be acknowledged. First, the search strategy was restricted to two primary electronic databases (Scopus and Web of Science); although highly comprehensive, relevant studies indexed solely in other specialized database platforms may have been omitted. Second, the inclusion criteria were constrained to peer-reviewed journal articles published in English and French between 2021 and 2026, excluding gray literature, book chapters, and research published in other languages.

Third, the final evidence base of 21 studies exhibits heterogeneity in study designs, target languages (e.g., French, EFL, ESP), and geographical contexts, which restricts direct empirical generalization across all educational settings. Future systematic reviews could address these limitations by incorporating a wider array of database indexers, non-Western language publications, and meta-analytic quantitative approaches where data homogeneity permits.

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Conflicts of Interest

The authors declare that they have no conflicts of interest to report regarding the present study.

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