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Willingness to Communicate in English Language Learning in Higher Education: A Bibliometric-Systematic Review of Research Trends, Influencing Factors, and Future Directions

Lim Seong Pek 

Faculty of Education and Liberal Arts, INTI International University, Negeri Sembilan, Malaysia
Email: seongpek.lim@newinti.edu.my

Siti Khadijah Mohd Yusof 

Faculty of Education and Liberal Arts, INTI International University, Negeri Sembilan, Malaysia
Corresponding Author: khadijah.yusof@newinti.edu.my

Fatin Syamilah Che Yob 

Faculty of Education and Liberal Arts, INTI International University, Negeri Sembilan, Malaysia
Email: fatinsyamilah.cheyob@newinti.edu.my

Dianna Suzieanna Mohamad Shah 

Academic of Language Studies, Universiti Teknologi MARA, Shah Alam, Malaysia
Email: dianna@uitm.edu.my

M. Zaini Miftah 

Faculty of Teacher Training and Education, Universitas Islam Negeri Palangka Raya
Email: m.zaini.miftah@uin-palangkaraya.ac.id

Elfi 

Fakultas Tarbiyah dan Ilmu Keguruan, Universitas Islam Negeri Mahmud Yunus, Indonesia
Email: elfi@iainbatusangkar.ac.id

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Abstract

Willingness to Communicate is an important dimension of English language learning because it reflects learners' readiness to use English when communication opportunities arise. As higher education increasingly emphasizes communicative competence, understanding the factors that facilitate or constrain students' willingness to communicate has become particularly important. This study examines the intellectual structure, research trends, and thematic developments of willingness to communicate in English-language learning among higher-education students. By integrating large-scale knowledge mapping with an in-depth synthesis of empirical evidence, the study provides a more comprehensive understanding of how willingness to communicate has developed and the factors shaping students' communication engagement. A two-stage Bibliometric-Systematic Literature Review was conducted. The bibliometric stage analyzed 193 Scopus-indexed articles published between 2021 and 2025 using bibliographic coupling and VOSviewer, followed by a systematic review of 25 empirical studies selected through Preferred Reporting Items for Systematic Reviews and Meta-Analyses-guided screening process. Four interconnected research clusters were identified, covering positive psychology and learner agency, motivation and teacher support, digital learning and emotions, and emerging technologies and dynamic communication behavior. The systematic synthesis further revealed that emotional, motivational, technological, and classroom-related factors interact to shape willingness to communicate. Overall, the findings position willingness to communicate as a dynamic and context-sensitive dimension of English language learning in higher education.

Keywords: Bibliometric-systematic literature review, communication engagement, English language learning, higher education students, willingness to communicate

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Introduction

Willingness to Communicate (WTC) has become an important concept in English Language Learning because successful language development depends not only on learners' linguistic knowledge but also on their readiness to use English when opportunities for communication arise. WTC, therefore, represents an important connection between language competence and actual language use. Learners with greater willingness to communicate are more likely to participate in classroom interaction, engage in academic discourse, and use English for meaningful communication (Yashima, 2021; Alam et al., 2022). Understanding WTC is particularly important in higher education, where students are expected to communicate across academic, social, intercultural, and increasingly digital environments.

The communicative demands placed on higher education students have also become more diverse. English is used in classroom discussions, presentations, collaborative activities, English-medium instruction, online learning, and intercultural interaction. However, opportunities to communicate do not necessarily result in actual participation. Research indicates that willingness to communicate may vary across psychological, motivational, pedagogical, cultural, and technological conditions (Alimorad & Farahmand, 2021; Salbaş & Ekmekci, 2025). Recent studies further demonstrate that WTC can fluctuate across situations and over time rather than remaining a stable learner characteristic (Zhang et al., 2022; Henry et al., 2024). Such developments make it necessary to understand how contemporary research conceptualises and investigates WTC within changing higher education environments.

Despite increasing scholarly attention, literature remains dispersed across different research perspectives. Ma et al. (2023) mapped the development of WTC research using a bibliometric analysis, while Kirkpatrick et al. (2024) identified key conceptual and methodological issues through a scoping review. These studies provide valuable insights but leave room for an approach that connects the broader intellectual organization of the field with a focused synthesis of empirical evidence. This is particularly relevant to higher education because university learners experience academic, intercultural, technological, and professional communication demands that may differ from those encountered in other educational settings.

Accordingly, this study employs a Bibliometric-Systematic Literature Review (BSLR). Bibliometric analysis enables the identification of a field's intellectual structure and emerging research streams (Donthu et al., 2021), whereas systematic synthesis allows closer examination of recurring empirical findings (Paul & Criado, 2020). Their integration, therefore, provides both macro-level mapping and a focused interpretation of WTC research. The study aims to examine contemporary research trends and synthesize empirical evidence concerning WTC in English Language Learning, particularly among higher education students. In doing so, it seeks to clarify the field's development, identify influential factors and outcomes, and establish research gaps and future directions. The study addresses the following research questions:

- What are the major intellectual and thematic research trends in Willingness to Communicate in English language learning?
- What psychological, motivational, technological, and pedagogical factors influence Willingness to Communicate among higher education students?
- What key outcomes, research gaps, and future directions emerge from the literature on Willingness to Communicate in English language learning in higher education?

Literature Review

Willingness to Communicate (WTC) refers to learners' readiness to engage in communication when opportunities arise to use a second or foreign language. In English language learning, WTC is important because possessing linguistic knowledge does not necessarily lead to actual language use. Learners may have adequate proficiency yet remain reluctant to speak because their communication decisions are influenced by both individual and situational factors. Earlier

conceptualizations often emphasized relatively stable learner characteristics, whereas more recent perspectives recognize that WTC can vary across communicative situations, interlocutors, learning environments, and learners' emotional experiences. Henry et al. (2024), for instance, demonstrated that WTC develops dynamically across time, while Zhang et al. (2022) found variability in learners' state WTC across classroom situations. These findings support the view that WTC should be understood as a context-sensitive rather than purely dispositional construct.

Psychological and motivational factors are particularly prominent in explaining such variation. Self-confidence, enjoyment, emotional intelligence, self-efficacy, grit, and motivation have been associated with greater readiness to communicate, whereas anxiety, shyness, boredom, and fear of making mistakes can discourage participation. Lee (2022) identified classroom enjoyment and grit as important contributors to WTC, while Li and Pan (2025) demonstrated relationships among emotional intelligence, teacher support, emotions, and willingness to communicate. Similarly, Alnaeem and Alwasidi (2023) reported a negative relationship between shyness and WTC among Saudi EFL learners, indicating that affective characteristics can shape students' classroom communication. Psychological adjustment has also been associated with WTC among university EFL learners (Mutar et al., 2024), further demonstrating the relevance of learners' psychological conditions to English communication.

Nevertheless, WTC cannot be explained solely through internal learner characteristics. Linguistic competence and the classroom environment also shape learners' communication decisions. Alqurashi and Althubaiti (2021) found that perceived linguistic limitations, restricted vocabulary, and concerns about making mistakes contributed to reluctance to communicate among university EFL learners. Teacher-related factors are similarly important. Teacher clarity, immediacy, rapport, supportive teaching practices, and authentic communicative tasks can create conditions that increase students' willingness to participate (Cai, 2021; Song et al., 2022; Shao, 2025). A recent systematic review in the Arab World English Journal also showed that classroom-based instructional practices can facilitate second-language WTC, reinforcing the pedagogical importance of creating opportunities and conditions that support communication (Gao et al., 2024). These findings suggest that willingness to communicate develops through interactions between learners' personal resources and their immediate learning environment.

The growing use of technology has further expanded the context in which WTC develops. Informal Digital Learning of English, social media, Computer-Assisted Language Learning, online learning, and Artificial Intelligence-mediated communication provide learners with opportunities to communicate beyond traditional classrooms. Zadorozhnyy and Lee (2025) showed that self-efficacy mediates the relationship between informal digital learning and WTC, while Zhang et al. (2025) linked Artificial Intelligence literacy to willingness to communicate through self-efficacy and classroom anxiety. However, digital environments do not automatically generate greater WTC. Emotional experiences, technological confidence, social interaction, and instructional support remain important in determining whether technology facilitates communication.

Previous research establishes WTC as a multidimensional phenomenon shaped by psychological, motivational, linguistic, pedagogical, and technological conditions. However, these strands have often developed separately, making it difficult to determine how they collectively structure contemporary WTC research and interact within English-language learning in higher education. This fragmentation provides the basis for the present review, which integrates bibliometric mapping with systematic synthesis to examine both the field's intellectual development and its empirical evidence.

Method

This study employed a Bibliometric-Systematic Literature Review (BSLR) approach to provide a comprehensive understanding of research on Willingness to Communicate (WTC) among higher education students. The integration of bibliometric analysis (BA) and systematic literature review (SLR) enables researchers to examine both the intellectual structure of a field and the empirical evidence underpinning its development (Adha et al., 2026; Donthu et al., 2021).

While bibliometric analysis maps publication trends, research networks, and thematic relationships (Wider et al., 2024), the SLR synthesizes findings from individual studies to identify recurring themes and research gaps (Paul & Criado, 2020).

Data were retrieved from the Scopus database due to its extensive coverage of peer-reviewed publications and reliable citation metadata, making it a widely recognized source for bibliometric research (Baas et al., 2020; Mongeon & Paul-Hus, 2016). The bibliometric stage was conducted using VOSviewer, which facilitates the visualization of relationships among publications and research themes through network mapping techniques (Van Eck & Waltman, 2010). The two approaches were integrated sequentially: bibliographic coupling mapped how contemporary WTC scholarship is intellectually organized, while thematic synthesis examined what the selected empirical studies collectively revealed.

Bibliographic coupling was selected as the primary analytical method because it identifies connections between publications based on shared references, thereby revealing contemporary research streams and emerging trends within the WTC literature (Donthu et al., 2021; Kessler, 1963). Besides, bibliographic coupling was preferred to co-word analysis because shared references provide a stronger basis for identifying contemporary research communities, whereas co-word analysis primarily reflects relationships among frequently used terms (Donthu et al., 2021; Kessler, 1963).

Subsequently, a systematic literature review was conducted in accordance with the PRISMA framework (Page et al., 2021). Through a structured screening and eligibility process, relevant empirical studies were selected and analyzed using thematic synthesis. The integration of bibliometric mapping and systematic review provided a robust overview of research developments, dominant themes, and future directions in WTC research among higher education students.

Search Strategy

The article selection process was conducted in two stages to ensure both comprehensive coverage and methodological rigor. In the first stage, a bibliometric analysis was conducted using the Scopus database to map the overall intellectual landscape of research on willingness to communicate (WTC) in English-language learning. Scopus was selected because of its extensive coverage of high-quality peer-reviewed publications and reliable citation metadata. To ensure the dataset's relevance and quality, several inclusion criteria were applied, including Scopus-indexed publications, articles published between 2021 and 2025, English-language documents, journal articles only, and open-access publications. The search was conducted using the keywords “willingness to communicate” and “English” within the title, abstract, and keyword fields. These criteria enabled the identification of contemporary research trends and emerging developments in the WTC domain.

Table 1. Inclusion Criteria for Bibliometric Analysis

Scopus Database	Criteria
Time period	2021 to 2025
Search field	TITLE-ABS-KEY
Search keywords	“willingness to communicate” AND “English”
Document Types	Article
Language	English
Open Access	All Open Access

In the second stage, a systematic literature review (SLR) was conducted using the PICOS framework to refine the dataset and retain only studies directly relevant to the review objectives. The review focused on higher education learners, including university, college, and tertiary-level

students. Studies were required to investigate willingness to communicate as the primary construct within communicative learning contexts and report outcomes related to communicative participation, engagement, or communication behavior. Empirical quantitative, qualitative, and mixed-method studies were included, whereas review articles and studies involving primary, secondary, or preschool learners were excluded. This two-stage screening process ensured that the final sample comprised high-quality empirical evidence specifically addressing WTC among higher education students.

Table 2. Inclusion and Exclusion based on PICOS for SLR

PICOS Element	Inclusion	Exclusion
Population (P)	Higher education learners, university students, college students, tertiary learners	Primary school students, Secondary school students, Preschool children
Intervention (I)	Willingness to communicate (WTC)	General language proficiency
Context (C)	Communicative context	Non-communicative context
Outcomes (O)	Communicative participation, engagement behaviour	Non-communicative engagement
Study Design (S)	Empirical studies	Reviews

PRISMA Screening Process

The article selection process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to ensure transparent, systematic identification of relevant studies. The screening procedure consisted of five stages: identification, screening, eligibility assessment, inclusion, and data synthesis and analysis.

Identification

The identification stage involved retrieving publications from the Scopus database using a search string related to willingness to communicate (WTC) in English-language learning. A total of 634 records were initially identified. To ensure that the dataset reflected contemporary developments in the field, publications outside the selected timeframe of 2021-2025 were excluded, resulting in the removal of 221 records. This initial filtering produced 413 records for further assessment.

Screening

During the screening stage, the remaining records were examined according to the predefined document-type criteria. Only journal articles were retained, while conference papers, book chapters, reviews, editorials, and other publication types were excluded. This process resulted in the exclusion of 52 records, leaving 361 articles for full-text assessment. The screening stage ensured consistency in publication quality and comparability across studies.

Eligibility

The eligibility stage involved a detailed examination of the full-text articles against the established inclusion criteria. Articles published in languages other than English and publications that were not available as open-access documents were excluded. As a result, 168 records were removed, leaving 193 studies eligible for the bibliometric analysis stage. These studies constituted the final dataset used to map publication trends and intellectual structures within WTC research.

Included Studies

The second stage focused on the systematic literature review (SLR). The 193 studies included in the bibliometric analysis underwent title screening to assess their relevance to WTC among higher-education students. A total of 163 records were excluded because they did not focus on higher education populations or did not investigate WTC as the primary construct. The remaining 30 studies proceeded to the abstract screening stage. Following abstract evaluation, five additional studies were excluded due to non-empirical designs or the unavailability of full texts. Ultimately, 25 studies met all inclusion criteria and were retained for the systematic review.

Data Analysis

The final 25 studies underwent thematic synthesis to identify recurring patterns, influential factors, and emerging directions in WTC research among higher education students. Simultaneously, a bibliometric analysis was conducted using VOSviewer to examine publication structures and thematic relationships through bibliographic coupling. The integration of bibliometric mapping and systematic thematic synthesis enabled a comprehensive understanding of the field by combining quantitative knowledge mapping with qualitative interpretation of evidence. This two-stage BSLR approach facilitated the identification of dominant themes, research trends, and existing knowledge gaps within WTC literature.

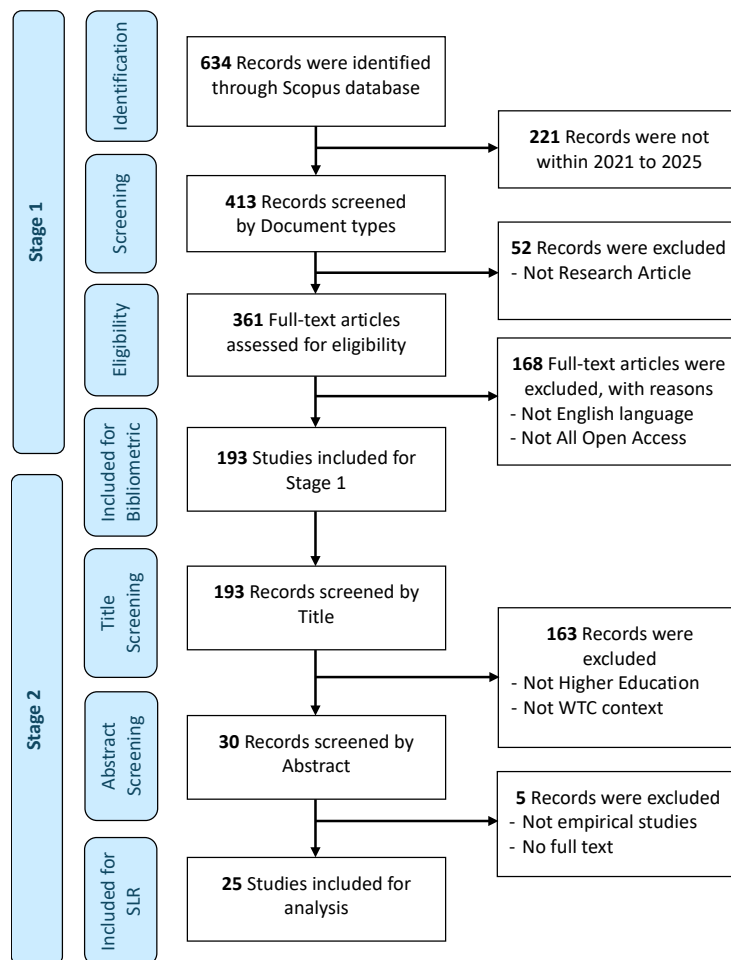


Figure 1. PRISMA Flowchart

Results

Bibliographic Coupling Analysis

Bibliographic coupling analysis was conducted to identify contemporary intellectual structure and thematic relationships within the willingness to communicate (WTC) literature. Unlike co-citation analysis, which examines the historical foundations of a research field, bibliographic coupling connects documents that share common references, thereby revealing current research directions and emerging areas of scholarly interest (Donthu et al., 2021; Kessler, 1963). Using VOSviewer, the analysis grouped related publications into clusters based on the strength of their shared reference patterns. These clusters represent interconnected research streams that collectively shape the development of WTC scholarship. The resulting network revealed four major clusters, reflecting distinct yet overlapping themes related to positive psychology, motivation and teacher support, digital learning and emotions, and emerging technologies in communication research. The cluster analysis provides a deeper understanding of how contemporary WTC studies are organized and how the field continues to evolve in response to changing educational and technological contexts.

Cluster 1 highlights the influence of positive psychological attributes and learner agency on willingness to communicate (WTC). The studies demonstrate that enjoyment, grit, self-regulation, creativity, and meaningful communication tasks strengthen learners' readiness to engage in English communication. Lee (2022) found that classroom enjoyment and grit significantly enhance WTC, while MacIntyre and Wang (2021) emphasized the role of meaningful

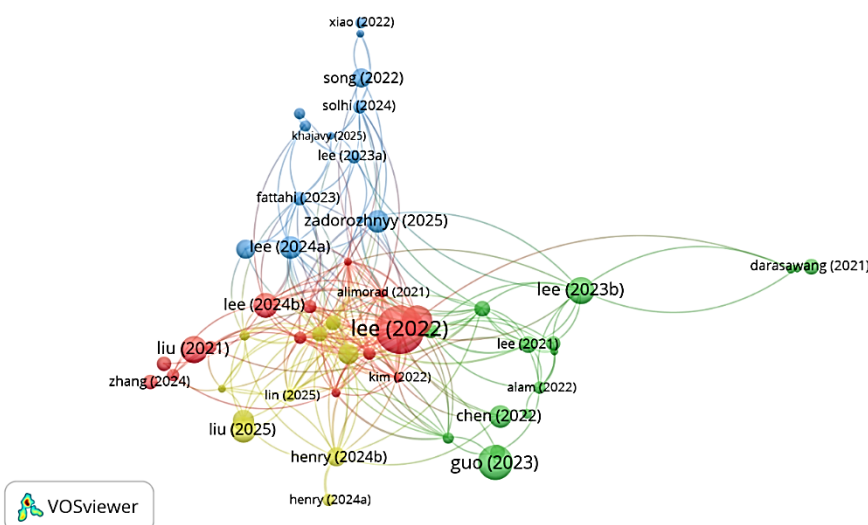


Figure 2. Bibliographic Coupling Network (VOSviewer Visualization)

communicative tasks in stimulating learners' communication intentions. Zhang (2024) further reported that self-regulation positively affects motivation, self-efficacy, creativity, and WTC. The cluster also underscores the contribution of innovative pedagogies, including game-based learning and TikTok-assisted language learning, in promoting communication engagement (Hu & Du, 2022; Liu et al., 2021). Overall, the findings suggest that WTC is shaped not only by language ability but also by positive psychological resources and learner autonomy, reflecting the growing influence of positive psychology in contemporary WTC research.

Cluster 2 centers on the motivational and pedagogical factors that shape learners' willingness to communicate. A dominant theme across the studies is the influence of teacher-related variables, including teacher immediacy, rapport, teaching style, and scaffolding practices. Cai (2021) found that teacher-student rapport and immediacy significantly predict WTC among Chinese EFL learners, while Chen et al. (2022) highlighted the importance of supportive teaching

styles in sustaining communicative engagement. Studies also emphasize the role of learner motivation, particularly the L2 Motivational Self System, in driving communication behavior (Ebn-Abbasi et al., 2022; Lee & Lu, 2023). Additionally, blended learning environments and instructional scaffolding have been shown to strengthen learners' self-efficacy and confidence in communication (Guo et al., 2023). Darasawang and Reinders (2021) further demonstrated a positive relationship between language proficiency and WTC, suggesting that communicative readiness develops alongside linguistic competence. Overall, this cluster portrays WTC as a socially constructed phenomenon shaped by the interaction between learner motivation, instructional support, and classroom environment.

Cluster 3 focuses on willingness to communicate (WTC) within digital and online learning environments. The studies highlight the influence of informal digital English learning (IDLE), online communication experiences, and emotional factors on communication behavior. Zadorozhnyy and Lee (2025) found that self-efficacy mediates the relationship between digital learning and WTC, while Lee et al. (2024) reported a similar mediating effect for foreign language enjoyment. Taherian et al. (2024) further demonstrated that digital learning experiences shape WTC through changes in emotional states such as engagement and boredom. Other studies emphasized the importance of teacher care, rapport, and emotional support in sustaining communication in online settings (Song et al., 2022). Conversely, negative emotions, including boredom and anxiety, were found to reduce learners' willingness to communicate (Fattahi et al., 2023; Solhi, 2024). Overall, the cluster illustrates how digital technologies and emotional experiences jointly influence willingness to communicate in contemporary language learning environments.

Cluster 4 reflects recent developments in WTC research, focusing on artificial intelligence (AI), dynamic communication behavior, and future research directions. Studies show that AI-mediated learning environments can enhance willingness to communicate by improving AI literacy, self-efficacy, and enjoyment, while reducing communication anxiety (Liu & Fan, 2025; Zhang et al., 2025). Beyond technological influences, this cluster emphasizes the dynamic nature of WTC. Henry et al. (2024) and Zhang et al. (2022) demonstrated that willingness to communicate fluctuates across contexts and over time, highlighting the impact of situational factors rather than stable learner traits. Barrios and Acosta-Manzano (2025) further identified contextual variables that shape classroom WTC among adult language learners. The inclusion of Kirkpatrick et al. (2024) also reflects growing efforts to synthesize existing knowledge and identify future research priorities. Overall, this cluster represents the contemporary frontier of WTC scholarship, characterized by technological innovation, dynamic systems perspectives, and context-sensitive approaches.

Table 3. *Bibliographic Coupling Analysis by Clusters*

Cluster No and Colour	Cluster Labels	No. of Articles	Representative Publications
Cluster 1 (Red)	Positive Psychology, Learner Agency, and Communication Engagement	15	Lee (2022); MacIntyre & Wang (2021); Lee & Taylor (2024); Liu et al. (2021); Zhang (2024); Hu & Du (2022)
Cluster 2 (Green)	Motivation, Teacher Support, and Learning Environment	15	Guo et al. (2023); Lee & Lu (2023); Chen et al. (2022); Cai (2021); Ebn-Abbasi et al. (2022); Darasawang & Reinders (2021)
Cluster 3 (Blue)	Digital Learning, Emotions, and	13	Zadorozhnyy & Lee (2025); Lee et al. (2024); Taherian et

	Online Communication		al. (2024); Song et al. (2022); Fattahi et al. (2023); Solhi (2024)
Cluster 4 (Yellow)	Emerging Technologies, Dynamic WTC, and Future Research Directions	10	Liu & Fan (2025); Zhang wt al. (2025); Henry et al. (2024); Zhang et al. (2022); Barrios & Acosta-Manzano (2025); Kirkpatrick et al. (2024)

Systematic Literature Review (SLR)

Following the bibliometric analysis, a systematic literature review (SLR) was conducted to deepen understanding of the empirical evidence on willingness to communicate (WTC) among higher education students. While bibliometric analysis offers a macro-level overview of research trends and intellectual structures, the SLR enables a detailed examination of the factors, contexts, and outcomes associated with WTC. Using the PRISMA-guided screening process, 25 empirical studies were selected and synthesized through thematic analysis. This approach facilitated the identification of recurring patterns and dominant research areas within the literature. The thematic synthesis revealed five major themes: emotional and psychological determinants; motivation and self-beliefs; technology-enhanced WTC; classroom and teacher-related factors; and communication outcomes and academic development. These themes collectively illustrate the multifaceted nature of WTC and provide a comprehensive understanding of the factors influencing willingness to communicate in higher education contexts.

Table 4. *Thematic Mapping to Titles*

No.	Author(s)	T1 Emotional & Psychological Factors	T2 Motivation & Self-Beliefs	T3 Technology-Enhanced WTC	T4 Classroom & Teacher Factors	T5 Communication Outcomes
1	Lin & Wang (2025)	✓	✓		✓	✓
2	Li (2025)	✓	✓			✓
3	Qiangfu et al. (2025)	✓	✓			✓
4	Zhou (2025)	✓	✓		✓	✓
5	Cui et al. (2025)			✓		✓
6	Li & Pan (2025)	✓	✓		✓	✓
7	Al-Amrani et al. (2025)				✓	✓
8	Tra et al. (2025)	✓	✓			✓
9	Shao (2025)	✓			✓	✓
10	Lu (2025)	✓				✓

No.	Author(s)	T1 Emotional & Psychological Factors	T2 Motivation & Self-Beliefs	T3 Technology-Enhanced WTC	T4 Classroom & Teacher Factors	T5 Communication Outcomes
11	Alshammari (2025)	✓		✓	✓	✓
12	Zhao et al. (2025)		✓			✓
13	Zhang et al. (2025)		✓	✓		✓
14	Bashir et al. (2025)			✓	✓	✓
15	Xu et al. (2025)	✓	✓			✓
16	Zadorozhnyy & Lee (2025)		✓	✓		✓
17	Huang et al. (2025)	✓	✓			✓
18	Kusuma et al. (2025)			✓	✓	✓
19	Almziad (2025)	✓			✓	✓
20	Bagherzadeh (2025)		✓			✓
21	Abdullaeva et al. (2024)	✓	✓	✓		✓
22	Yamaoka (2024)			✓	✓	✓
23	Zou & Park (2024)	✓			✓	✓
24	Ouyang et al. (2024)			✓	✓	✓
25	Tan & Tu (2024)	✓	✓			✓

Theme 1: Emotional and Psychological Determinants of Willingness to Communicate

Emotional and psychological factors were prominent determinants of willingness to communicate (WTC), appearing in 14 of the 25 reviewed studies. The findings consistently show that positive emotions, such as enjoyment, emotional intelligence, self-confidence, and academic self-concept, enhance learners' communication engagement, whereas anxiety inhibits participation. Lin and Wang (2025) reported that foreign language enjoyment encourages active communication, while Li and Pan (2025) found that emotional intelligence indirectly strengthens WTC through teacher support and positive emotional experiences. Similarly, Tra et al. (2025) highlighted the importance of self-confidence and academic self-concept in promoting

communication readiness. In English-medium instruction contexts, enjoyment and an ideal L2 self positively influenced communication behavior, whereas anxiety reduced learners' willingness to speak (Xu et al., 2025). Additionally, enjoyment and emotional regulation were found to mediate WTC development (Shao, 2025; Zou, 2024). Overall, the findings underscore the central role of positive psychological experiences in fostering willingness to communicate.

Theme 2: Motivation and Self-Beliefs

Motivation and self-belief emerged as important determinants of willingness to communicate (WTC), appearing in 13 studies. Key factors included self-efficacy, grit, intrinsic motivation, academic self-concept, critical thinking, and the L2 Motivational Self System. Qiangfu et al. (2025) found that learners with stronger future-oriented L2 self-images exhibited higher levels of WTC, while Zhao et al. (2025) demonstrated that self-efficacy mediates the relationship between metacognitive strategies and willingness to communicate. Similarly, Huang et al. (2025) and Li (2025) reported that grit and perseverance help learners overcome linguistic challenges and sustain communication efforts. Zadorozhnyy and Lee (2025) further showed that self-efficacy explains the positive influence of informal digital learning on WTC. Among doctoral students, critical thinking was also associated with greater engagement in communication (Bagherzadeh, 2025). Overall, the findings suggest that learners with strong confidence in their abilities, clear academic goals, and sustained motivation are more likely to actively participate in communication activities, reinforcing the central role of self-beliefs in language learning.

Theme 3: Technology-Enhanced Willingness to Communicate

Technology-enhanced learning has become an important area of WTC research, with nine studies highlighting the influence of digital technologies, artificial intelligence (AI), social media, MOOCs, and computer-assisted language learning (CALL) on communication behavior. The findings consistently suggest that technology increases opportunities for interaction and reduces barriers to communication. Cui et al. (2025) found that acceptance of AI-mediated communication positively predicts WTC, whereas Zhang et al. (2025) reported that AI literacy enhances willingness to communicate by strengthening self-efficacy and reducing anxiety. Similarly, Bashir et al. (2025) demonstrated that CALL-based multimodal pedagogy improves learner motivation and participation in communication. Informal digital learning experiences further support WTC by increasing engagement and confidence in language use (Zadorozhnyy & Lee, 2025). Studies by Ouyang et al. (2024) and Abdullaeva et al. (2024) also showed that AI-integrated learning systems and intelligent language assessment platforms foster engagement in communication through enhanced technological confidence. Overall, technology functions as both a communication facilitator and motivational catalyst, extending authentic language use beyond traditional classroom environments.

Theme 4: Classroom Environment and Teacher-Related Factors

Classroom environment and teacher-related factors were identified as significant influences on willingness to communicate (WTC) across 11 studies. The findings highlight the importance of supportive learning environments, effective instructional practices, and positive teacher-student relationships in promoting communication engagement. Zhou (2025) found that satisfaction of social-emotional needs in EMI classrooms enhances learner motivation and participation in communication, while Shao (2025) reported that teacher clarity increases WTC through greater learner enjoyment. Similarly, Li and Pan (2025) and Tan and Tu (2024) showed that teacher support, charisma, and positive interpersonal interactions strengthen learners' confidence in communication. Task-based learning and authentic communicative activities further encourage active participation in language use (Al-Amrani et al., 2025). In online learning settings, continuous teacher facilitation remains essential for sustaining willingness to communicate (Alshammari, 2025). Overall, the findings suggest that WTC is strongly influenced by the social

and pedagogical learning environment, highlighting the crucial role of teachers in creating supportive, interactive, and psychologically safe spaces that encourage students to communicate confidently.

Theme 5: Communication Outcomes and Academic Development

Communication outcomes and academic development emerged as the most pervasive theme, appearing across all reviewed studies. The findings indicate that willingness to communicate (WTC) functions not only as an outcome of psychological, technological, and pedagogical influences but also as a driver of broader academic and linguistic growth. Students with higher levels of WTC demonstrated greater classroom participation, improved speaking performance, stronger communication competence, and increased academic engagement (Lin & Wang, 2025; Zhou, 2025). Several studies further showed that willingness to communicate promotes meaningful language use, contributing to the development of language proficiency and intercultural communication competence (Kusuma et al., 2025; Yamaoka, 2024). In digital and technology-enhanced learning environments, WTC encouraged active participation in online activities and collaborative learning interactions (Alshammari, 2025; Ouyang et al., 2024). Additionally, WTC was associated with positive learning outcomes, including critical thinking, learner autonomy, and social-emotional growth (Bagherzadeh, 2025; Kusuma et al., 2025). Overall, the findings position WTC as a key educational outcome that links language-learning processes to academic success and effective communication in higher education.

Discussion

The findings demonstrate that research on Willingness to Communicate (WTC) in English language learning has evolved towards a more dynamic and multidimensional understanding of communication behaviour. The bibliographic coupling analysis identified interconnected research streams involving positive psychology, learner agency, motivation, teacher support, digital learning, emotions, and emerging technologies. This development suggests a shift from viewing WTC primarily as an individual disposition towards recognising its sensitivity to learning experiences and situational conditions. This interpretation aligns with Henry et al. (2024) and Zhang et al. (2022), who demonstrated that willingness to communicate can fluctuate across contexts and over time.

The systematic synthesis further indicates that psychological, motivational, technological, and pedagogical factors do not influence WTC independently. Enjoyment, self-confidence, self-efficacy, grit, and motivation generally strengthen willingness to communicate, whereas anxiety and negative emotional experiences constrain participation (Huang et al., 2025; Li & Pan, 2025; Xu et al., 2025). Psychological and motivational factors appear particularly influential because they directly affect learners' readiness to communicate, even when opportunities for English use are available. Meanwhile, teacher support and technological environments may influence WTC indirectly by strengthening confidence, enjoyment, and self-efficacy (Shao, 2025; Zadorozhnyy & Lee, 2025). Technology, therefore, cannot be regarded as inherently beneficial; its effectiveness depends on the emotional, motivational, and communicative experiences it creates.

Moreover, WTC is associated with outcomes extending beyond classroom participation, including speaking performance, communication competence, academic engagement, intercultural communication, and learner autonomy. This positions WTC as both an outcome of English language learning and a mechanism through which linguistic knowledge becomes meaningful language use. Nevertheless, the increasing prominence of artificial intelligence and digital communication, together with contextual variation across studies, highlights the need for longitudinal and cross-cultural research examining how WTC develops across physical and digital learning environments.

Theoretical Implications

This study advances willingness to communicate (WTC) research by highlighting WTC as a dynamic, multidimensional construct shaped by emotional, motivational, technological, and contextual factors, rather than a fixed individual trait. The combined findings from the bibliometric and systematic reviews support contemporary perspectives that view willingness to communicate as responsive to learners' experiences and learning environments (Henry et al., 2024; Zhang et al., 2022). The prominence of enjoyment, emotional intelligence, self-efficacy, and grit reinforces the growing relevance of positive psychology in explaining communication behavior among language learners (Huang et al., 2025; Lee, 2022; Li & Pan, 2025). Furthermore, the emergence of technology-related themes indicates that existing WTC frameworks should extend beyond traditional classroom settings to include digital learning environments, artificial intelligence, and informal online learning experiences (Zadorozhnyy & Lee, 2025; Zhang et al., 2025). Overall, the findings support a more integrated conceptualization of WTC that combines psychological, sociocultural, and technological dimensions, providing a stronger theoretical foundation for understanding communication behavior in contemporary higher education contexts.

Practical Implications

The findings offer important implications for educators, curriculum developers, and higher education institutions seeking to enhance students' willingness to communicate (WTC). Creating positive learning environments that promote enjoyment, confidence, and psychological safety while reducing communication anxiety can significantly increase students' participation in communication activities (Li & Pan, 2025; Xu et al., 2025). Supportive teacher-student relationships, collaborative learning, and authentic communicative tasks further encourage active engagement (Shao, 2025; Zhou, 2025). Additionally, instructional practices should focus on strengthening learners' self-efficacy, motivation, and resilience through meaningful opportunities for language use and reflective learning experiences (Qiangfu et al., 2025; Zhao et al., 2025). The findings also highlight the value of integrating technologies such as artificial intelligence, CALL, MOOCs, and social media into language learning, as these tools provide flexible, low-anxiety environments for communication practice (Bashir et al., 2025; Cui et al., 2025). Finally, policymakers and curriculum designers should recognize WTC as an essential educational outcome alongside language proficiency, given its contribution to academic engagement, intercultural competence, and lifelong communication skills in higher education.

Conclusion

This Bibliometric-Systematic Literature Review (BSLR) provides a comprehensive overview of the evolving research landscape on willingness to communicate (WTC) among higher education students. By integrating bibliometric coupling analysis with a systematic review of empirical studies, the study identified major intellectual foundations, emerging research directions, and dominant themes shaping contemporary WTC scholarship. The findings reveal that WTC is influenced by a complex interaction of emotional and psychological factors, motivational beliefs, technology-enhanced learning experiences, and classroom-related conditions. Positive emotions, self-efficacy, motivation, supportive learning environments, and digital learning opportunities consistently contribute to greater willingness to communicate, while anxiety and unfavorable learning conditions may hinder participation.

The bibliometric findings further demonstrate a growing shift towards positive psychology, digital learning, artificial intelligence, and dynamic perspectives of communication behavior. These developments suggest that WTC is increasingly recognized as a multidimensional construct that extends beyond linguistic competence and serves as a key indicator of successful language learning and academic engagement. The study contributes to achieving Sustainable Development Goal 4 (Quality Education) by highlighting factors that promote equitable, inclusive education, and effective learning opportunities in higher education. Enhancing students' willingness to communicate can foster active participation, intercultural understanding, and lifelong learning

competencies. Future research should continue exploring WTC across diverse cultural contexts and emerging digital environments to develop more holistic and sustainable approaches to language education.

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About the Authors

Lim Seong Pek is a Senior Lecturer at the Faculty of Education and Liberal Arts, INTI International University. He received his Doctor of Education (Ed.D.) degree from Universiti Selangor. He specializes in Media Literacy, Multimodality, and Teacher Education. <https://orcid.org/0000-0002-0322-7572>

Siti Khadijah Mohd Yusof is an English Lecturer at the Faculty of Education and Liberal Arts, INTI International University. She is currently a D.Ed. candidate at INTI International University. She specializes in Reticent Studies, Willingness to Communicate, and Oral Communication. <https://orcid.org/0009-0003-2306-3880>

Fatin Syamilah Che Yob is an English Lecturer at the Faculty of Education and Liberal Arts, INTI International University. She is currently a Ph.D. candidate at the National Defence University of Malaysia. She specializes in TESL, Social Emotional Learning, Materials Design, and Gamified Studies. <https://orcid.org/0009-0003-2306-3880>

Dianna Suzieanna Mohamad Shah lectures at the Academy of Language Studies (APB), Universiti Teknologi MARA (UiTM) Shah Alam and she is a university-wide Fellow for 360 degree and Video Learning with the Centre for Instructional Delivery and Learning Development (CIDL), UiTM. She holds a Master of Education (TESL) and is currently pursuing her Ph.D. in Education (TESL). <https://orcid.org/0000-0002-0367-1577>

M. Zaini Miftah is an assistant professor at the Department of English Language Education of Institut Agama Islam Negeri Palangka Raya Kalimantan Tengah Indonesia with many years of experience in the Teaching of English as a Foreign Language. He is interested in the development of ELT, TEFL, L2 Writing, Blended Learning, and ICT-based ELT. <https://orcid.org/0000-0003-1815-3075>

Elfi is an English Lecturer at the Fakultas Tarbiyah dan Ilmu Keguruan, Universitas Islam Negeri Mahmud Yunus, Indonesia. She is currently a Ph.D. candidate. She is interested in ELT and Education Technology. <https://orcid.org/0009-0003-7950-3777>

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