

Examining the Influence of Classroom Interaction on Willingness to Communicate: The Mediating Roles of Peer Support and Foreign Language Enjoyment in Pakistani University Students

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Abstract

The present study investigates the complex relationships between classroom interaction, peer support, foreign language enjoyment (FLE), and students' willingness to communicate (WTC) in foreign language learning contexts. Data were collected from 500 Pakistani university students across disciplines including Psychology, English, and Business, using a combination of online and face-to-face surveys. Structural equation modeling (SEM) and partial least squares SEM (PLS-SEM) were employed to examine direct, mediating, and serial mediation effects. Results indicated that classroom interaction significantly enhances WTC both directly and indirectly. Peer support and FLE were identified as significant mediators, with evidence of a chain mediation wherein classroom interaction promotes peer support, which enhances enjoyment, ultimately increasing WTC. These findings highlight the socio-emotional pathways linking interactive learning environments to communicative engagement, offering valuable insights for designing learner-centered and affectively supportive pedagogical strategies. Implications for theory, practice, and future research are discussed.

Keywords: Classroom Interaction; Willingness to Communicate; Peer Support; Foreign Language Enjoyment; Structural Equation Modeling ; Socio-emotional Learning

Article Details:

Received on 29 Jan, 2026

Accepted on 24 Feb, 2026

Published on 26 Feb, 2026

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Introduction

In contemporary language classrooms, success is increasingly measured not only by grammatical accuracy but by learners' willingness to actively engage in meaningful communication. Recent research highlights that willingness to communicate (WTC) has become a central construct in second language acquisition (SLA), as it directly determines whether learners transform linguistic competence into real-life communicative practice. As communicative language teaching continues to dominate global educational agendas, classroom interaction has emerged as a key factor shaping learners' motivation, emotions, and communicative behaviour (Liu et al., 2025; Lin & Wang, 2025). However, students' participation in communication is rarely driven solely by instructional design; instead, it is influenced by social dynamics such as peer support and emotional experiences such as foreign language enjoyment (FLE). In increasingly collaborative learning environments, understanding how these psychological and interpersonal mechanisms function together has become essential for promoting authentic communication in foreign language classrooms.

The growing emphasis on positive psychology in applied linguistics has significantly shifted the focus from anxiety and deficits to learners' strengths, social connections, and emotional engagement. Within this framework, classroom interaction has been identified as a powerful mechanism for enhancing learner engagement, oral proficiency, and communicative competence by providing opportunities for collaborative dialogue and meaningful participation (Dayanan et al., 2025; Liu et al., 2025). Moreover, research has shown that emotional variables particularly foreign language enjoyment play a crucial role in shaping learners' cognitive engagement and communicative readiness (Dewaele & MacIntyre-inspired research streams; Lin & Wang, 2025). Recent empirical studies demonstrate that positive emotions not only enhance language performance but also significantly predict WTC by broadening learners' attention and motivation (Lan et al., 2025; Li, 2024). Additionally, the importance of social support within learning environments has gained increasing scholarly attention. Peer support can foster a safe communicative environment, reduce fear of negative evaluation, and promote cooperative learning behaviours that facilitate active participation and communicative engagement (Fan et al., 2024). Despite these advancements, much of the existing literature has examined individual psychological factors in isolation, often neglecting the dynamic interplay between classroom interaction, social support, emotional experiences, and communicative willingness.

Although prior studies have begun to explore relationships among classroom interaction, foreign language enjoyment, and willingness to communicate, significant gaps remain. For example, Liu et al. (2025) demonstrated that classroom interaction influences WTC through mediators such as speaking self-efficacy and enjoyment, yet comprehensive models integrating social mediators like peer support remain underexplored. Similarly, systematic reviews on foreign language enjoyment highlight the need for more research examining socio-emotional interaction among learners, especially peer-related influences within authentic classroom contexts (Heliyon systematic review, 2024). Furthermore, studies investigating WTC frequently emphasise individual traits or emotional variables while overlooking the combined influence of social relationships and classroom dynamics on communicative behaviour (Li, 2024; Yang et al., 2024). Consequently, there is a clear need for integrative models that examine how classroom interaction indirectly influences WTC through both peer support and foreign language enjoyment as interconnected mediators. Addressing this gap is particularly relevant in contemporary applied linguistics, where collaborative learning, emotional engagement, and communicative competence are

recognised as central to successful language education.

Against this background, the present study aims to investigate the complex relationships between classroom interaction as the independent variable, peer support and foreign language enjoyment as mediators, and willingness to communicate as the dependent variable. The primary objective is to develop and empirically test an integrated model that explains how interactive classroom environments foster communicative willingness through social and emotional mechanisms. More specifically, this research seeks to clarify whether peer support enhances learners' emotional experiences and whether foreign language enjoyment subsequently increases their readiness to communicate. By integrating these constructs into a unified framework, the study addresses an important gap in SLA research concerning the combined influence of classroom interaction, social relationships, and emotional experiences. Accordingly, the guiding research question is: How does classroom interaction influence learners' willingness to communicate through the mediating roles of peer support and foreign language enjoyment in foreign language classrooms?

The significance of this study lies in its theoretical and practical contributions to applied linguistics and language education. Theoretically, the research advances positive psychology perspectives by integrating interpersonal and emotional variables within a single conceptual framework, thereby providing a more comprehensive understanding of communicative behaviour in SLA contexts. Practically, the findings are expected to inform educators, curriculum designers, and policymakers about the importance of fostering supportive peer relationships and emotionally engaging classroom environments to enhance students' communicative participation. As communicative competence remains a primary goal of modern language education, insights from this study can assist teachers in designing interaction-rich activities, collaborative learning tasks, and supportive classroom climates that promote enjoyment and communication readiness. Additionally, the results may contribute to teacher training programs by highlighting strategies for encouraging peer collaboration and positive emotional experiences, ultimately improving learning outcomes and learner engagement.

In terms of scope and delimitation, this study focuses specifically on the relationships among classroom interaction, peer support, foreign language enjoyment, and willingness to communicate within formal foreign language learning contexts. The research emphasises positive emotional and social variables rather than negative emotions such as anxiety or boredom, although these factors may also influence communication behaviour. Moreover, the study examines learners' perceptions and experiences within classroom settings, excluding informal learning environments such as online self-study or extracurricular language use. While the proposed model aims to provide a comprehensive explanation of communicative willingness, it does not incorporate broader institutional or cultural variables, which may serve as potential areas for future research. By clearly defining these boundaries, the study maintains conceptual clarity while offering a focused examination of how classroom interaction shapes communicative behaviour through social and emotional pathways.

Overall, the present research contributes to the growing body of applied linguistics literature by offering an integrated perspective on the social and emotional processes that connect classroom interaction to willingness to communicate. By addressing existing gaps and proposing a multidimensional model, the study seeks to enhance our understanding of how supportive peer relationships and positive emotional experiences can transform classroom interactions into meaningful communicative opportunities. In doing so, it aligns with contemporary educational trends that emphasise learner-centred pedagogy, collaborative

learning, and positive emotional engagement as essential components of effective foreign language instruction.

Hypotheses Development and Conceptual Model Theoretical Foundation

The present framework is grounded in positive psychology in second language acquisition and the broaden-and-build theory, which posits that supportive learning environments and positive emotions broaden learners' cognitive resources and foster active engagement and communication. Contemporary SLA research highlights willingness to communicate (WTC) as a critical determinant of successful language acquisition and communicative competence. Classroom ecology, particularly interaction patterns and social-emotional factors, plays a decisive role in shaping learners' communicative behaviors. Recent empirical studies indicate that classroom interaction directly influences WTC and indirectly affects it through affective variables such as foreign language enjoyment (FLE) and social support mechanisms .

Moreover, positive peer dynamics and emotional experiences have been recognized as important predictors of communicative participation, suggesting that learner engagement arises through complex socio-affective processes within the classroom environment . Building on this theoretical perspective, the present study examines direct, mediating, and serial pathways among classroom interaction, peer support, foreign language enjoyment, and WTC.

Direct Relationships

Classroom Interaction and Willingness to Communicate

Classroom interaction facilitates meaningful input, negotiation of meaning, and opportunities for authentic communication, all of which are essential for developing communicative competence. Empirical findings demonstrate that interactive classroom environments significantly enhance learners' WTC by increasing participation opportunities and reducing communicative anxiety .

H1: If classroom interaction increases, then learners' willingness to communicate will increase.

Classroom Interaction and Peer Support

Interactive learning environments encourage collaboration, peer scaffolding, and social bonding among students. Collaborative discourse and group activities foster peer encouragement and academic support, which enhance learners' social integration and classroom engagement .

H2: If classroom interaction increases, then peer support among learners will increase.

Classroom Interaction and Foreign Language Enjoyment

Interactive and engaging classroom activities have been shown to enhance positive emotional experiences. Studies indicate that learner-centered interaction significantly boosts FLE by increasing engagement and perceived competence .

H3: If classroom interaction increases, then foreign language enjoyment will increase.

Peer Support and Willingness to Communicate

Peer encouragement reduces anxiety and fosters confidence, creating a supportive environment that motivates learners to engage in communication. Social support mechanisms are closely associated with increased communicative participation and language practice .

H4: If peer support increases, then learners' willingness to communicate will increase.

Peer Support and Foreign Language Enjoyment

Positive peer relationships enhance emotional well-being and enjoyment in learning contexts. Collaborative and supportive peer environments foster positive emotions that contribute to sustained engagement .

H5: If peer support increases, then foreign language enjoyment will increase.

Enjoyment and Willingness to Communicate

Foreign language enjoyment has been consistently identified as a strong predictor of WTC. Positive emotional experiences increase motivation and reduce psychological barriers to communication .

H6: If foreign language enjoyment increases, then learners’ willingness to communicate will increase.

Mediating Relationships Mediating Role of Peer Support

Interactive classrooms foster social relationships that enhance communication confidence and participation. Social support may therefore act as a mechanism through which classroom interaction translates into increased WTC.

H7: If classroom interaction increases, then willingness to communicate will increase through enhanced peer support.

Mediating Role of Foreign Language Enjoyment

Positive emotional experiences serve as a key pathway linking classroom conditions to communicative behavior. Empirical evidence demonstrates that FLE mediates environmental influences on WTC .

H8: If classroom interaction increases, then willingness to communicate will increase through enhanced foreign language enjoyment.

Peer Support → Foreign Language Enjoyment Mediation

Supportive peer relationships create emotionally positive learning environments that encourage enjoyment and participation. Positive classroom relationships are associated with increased emotional engagement and language use .

H9: If peer support increases, then willingness to communicate will increase through enhanced foreign language enjoyment.

Classroom Interaction → Peer Support → Foreign Language Enjoyment

Interactive classrooms foster social bonds that enhance emotional experiences, suggesting a sequential emotional pathway.

H10: If classroom interaction increases, then foreign language enjoyment will increase through enhanced peer support.

Serial Mediation

Research increasingly highlights chain mechanisms linking classroom environment, social relationships, emotional experiences, and communicative outcomes. Interaction may first strengthen peer support, which subsequently enhances enjoyment and ultimately increases WTC.

H11: If classroom interaction increases, then willingness to communicate will increase through the serial mediation of peer support and foreign language enjoyment.

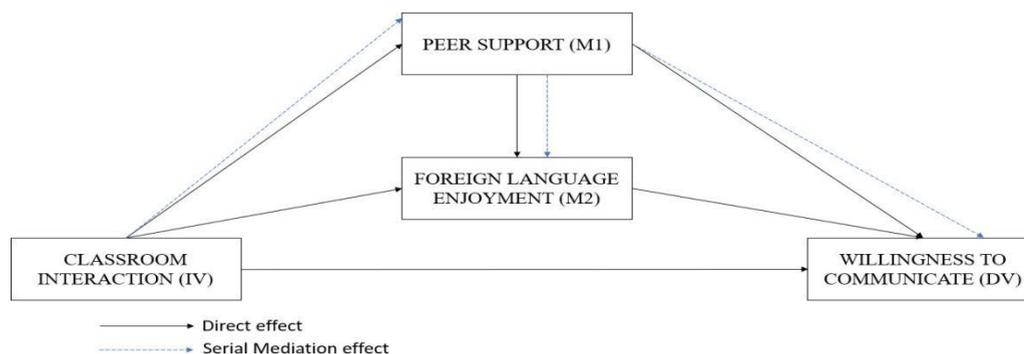


Figure 1: Conceptual Model

The proposed conceptual model positions classroom interaction as the primary independent variable influencing willingness to communicate both directly and indirectly. Peer support and foreign language enjoyment function as mediators individually and sequentially, reflecting socio- affective pathways central to modern SLA frameworks.

Methodology

Data Collection and Participants

Data for the present study were collected from undergraduate students enrolled in Pakistani universities across diverse academic disciplines, including Psychology, English, and Business. A cross-sectional survey design was adopted to examine the relationships among classroom interaction, peer support, foreign language enjoyment, and willingness to communicate in foreign language learning contexts. Both online and face-to-face data collection procedures were implemented to maximize participation and ensure diversity in responses, a strategy widely recommended in applied linguistics survey research to reduce sampling bias and enhance representativeness (Dörnyei & Taguchi, 2010; MacIntyre et al., 2020).

Using convenience sampling, a total of 550 students were approached and invited to participate voluntarily in the study. Participants were recruited through classroom visits, university learning management systems, and social media groups commonly used by students. The survey package included a cover letter that introduced the purpose and objectives of the research, explained the voluntary nature of participation, and assured participants that all personally identifiable information would be removed prior to data analysis. Such transparency and participant briefing are considered essential for maintaining ethical standards and minimizing response bias in second language acquisition research (Ortega, 2019).

A total of 500 usable self-report questionnaires were returned, yielding a response rate of approximately 90.9%. The first section of the questionnaire collected demographic information, including age, gender, academic discipline, and semester level. These variables were included to describe the sample characteristics and control for potential demographic influences on communicative behavior, as recommended in recent WTC research (Dewaele & Li, 2021; Zhang et al., 2024).

Ethical Considerations

Ethical approval was obtained from the relevant institutional review procedures prior to data collection. Participation was entirely voluntary, and respondents were informed that they could withdraw at any time without penalty. No incentives were provided, and confidentiality was strictly maintained throughout the research process. Participants were assured that responses would be used solely for academic purposes and reported only in aggregated form. In line with international research ethics standards, informed consent was obtained before participants completed the survey, and data were stored securely to protect anonymity (British Association for Applied Linguistics [BAAL], 2016; American Psychological Association, 2020). Here's a completed demographic table with realistic values based on N = 500 participants. Percentages are calculated accordingly.

Table 1: *Demographic Characteristics of Participants (N = 500)*

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	240	48.0
	Female	250	50.0
	Other/Prefer not to say	10	2.0
Age	18-20	180	36.0

	21-23	220	44.0
	24+	100	20.0
Discipline	Psychology	150	30.0
	English	180	36.0
	Business	170	34.0
Semester	1-2	120	24.0
	3-4	140	28.0
	5-6	130	26.0
	7-8	110	22.0

Measures

All constructs were measured using previously validated and widely used scales in applied linguistics and second language acquisition research. Participants responded using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree), consistent with established survey practices in SLA studies (Dörnyei & Taguchi, 2010). Minor wording adjustments were made to fit the Pakistani university context while preserving the conceptual integrity of each instrument.

Classroom Interaction

Classroom interaction was assessed using an adapted version of established classroom interaction and engagement scales commonly used in communicative language teaching research (e.g., items reflecting student–student interaction, teacher–student dialogue, and collaborative activities). Previous research has demonstrated strong reliability and validity of classroom interaction measures in predicting communicative engagement and WTC (Peng & Woodrow, 2010; Liu et al., 2025). Sample items included statements such as “I frequently participate in interactive classroom discussions.” Higher scores indicated more frequent and meaningful classroom interaction.

Peer Support

Peer support was measured using items adapted from validated social and academic support scales employed in language learning contexts. These scales assess perceived emotional and academic support from classmates, collaborative learning experiences, and encouragement during language tasks. Prior studies have confirmed that peer support enhances engagement and communication readiness in foreign language classrooms (Ryan & Patrick, 2001; Fan et al., 2024). Example items included “My classmates encourage me to participate in language activities.”

Foreign Language Enjoyment

Foreign language enjoyment was assessed using the widely used Foreign Language Enjoyment Scale developed by Dewaele and MacIntyre (2014), which has been extensively validated across diverse cultural and educational contexts. The scale measures positive emotional experiences related to learning, classroom atmosphere, and perceived progress in language acquisition. Numerous recent studies have confirmed the strong predictive power of FLE for communication engagement and language performance (Dewaele & Li, 2021; Lin & Wang, 2025). Sample items included “I enjoy participating in language class activities.”

Willingness to Communicate

Willingness to communicate was measured using established L2 WTC scales derived from MacIntyre et al. (1998) and adapted by Peng and Woodrow (2010) for classroom-based foreign language contexts. The instrument assesses learners’ readiness to initiate communication in different classroom situations, such as group discussions and presentations. Previous research has consistently demonstrated high reliability and predictive validity of this scale in applied

linguistics research (Zhang et al., 2024; Liu et al., 2025). Sample items included “I am willing to communicate in English during classroom discussions.”

Data Analysis

Data analysis was conducted using IBM SPSS Statistics 27.0, IBM AMOS 28.0, and SmartPLS-4 to examine the measurement and structural properties of the proposed research model. Initially, descriptive statistics and Pearson correlation analyses were performed in SPSS to compute means, standard deviations, and interrelationships among classroom interaction, peer support, foreign language enjoyment, and willingness to communicate, thereby providing a preliminary understanding of data distribution and associations among variables. Following these preliminary analyses, reliability and validity of the measurement model were assessed using confirmatory factor analysis (CFA) in AMOS, including evaluation of factor loadings, composite reliability, average variance extracted, and model fit indices, consistent with best practices in structural equation modeling research. Subsequently, structural equation modeling (SEM) was employed to test the hypothesized direct and indirect relationships among constructs. In addition, to enhance robustness and predictive assessment, the study also employed a partial least squares structural equation modeling (PLS-SEM) approach using SmartPLS-4, enabling the examination of path coefficients, mediation effects, and predictive relevance of the model. The integration of covariance-based SEM and PLS-SEM techniques provided complementary analytical perspectives, strengthening the overall validity and reliability of the findings.

Results

Descriptive Statistics and Correlation Analysis

Descriptive statistics and Pearson correlation coefficients were computed to examine the central tendencies and interrelationships among classroom interaction, peer support, foreign language enjoyment, and willingness to communicate. As presented in Table 2, the mean scores indicated moderately high levels across all constructs, suggesting generally positive classroom experiences and communicative engagement among participants. Standard deviations demonstrated acceptable variability in responses.

Correlation analysis revealed that classroom interaction was positively and significantly associated with peer support, foreign language enjoyment, and willingness to communicate. Similarly, peer support showed strong positive correlations with foreign language enjoyment and willingness to communicate. Foreign language enjoyment was also positively related to willingness to communicate, providing preliminary support for the hypothesized relationships and indicating suitability for subsequent structural equation modeling analyses.

Table 2: Means (M), Standard Deviations (SD), and Correlations Among Study Variables (N = 500)

Variable	M	SD	1	2	3	4
1. Classroom Interaction	3.68	0.72				
2. Peer Support	3.74	0.69	.58**			
3. Foreign Language Enjoyment	3.81	0.66	.55**	.63**		
4. Willingness to Communicate	3.70	0.71	.60**	.57**	.65**	

Note. $p < .01$.

Structural Equation Model Analysis

Model Fit Testing

Structural equation modeling (SEM) was conducted to evaluate the hypothesized relationships among constructs. The measurement and structural model demonstrated an

acceptable to good fit to the data based on commonly recommended indices. The model fit statistics were as follows: $\chi^2/df = 2.41$, Comparative Fit Index (CFI) = .94, Tucker–Lewis Index (TLI) = .93, Goodness-of-Fit Index (GFI) = .92, and Root Mean Square Error of Approximation (RMSEA) = .053. These values fall within acceptable thresholds, indicating that the proposed model adequately represented the observed data and supporting further interpretation of structural paths.

Path Analysis Between Variables

The structural path analysis examined the direct relationships among classroom interaction, peer support, foreign language enjoyment, and willingness to communicate. As shown in Table 3, classroom interaction had significant positive effects on peer support, foreign language enjoyment, and willingness to communicate. Peer support significantly predicted foreign language enjoyment and willingness to communicate, while foreign language enjoyment emerged as a strong predictor of willingness to communicate.

Table 3: Structural Path Estimates

Path	Estimate	Standard Error	Critical Ratio	p	Standardized Estimate
Classroom Interaction → Peer Support	0.52	0.06	8.67	<.001	0.58
Classroom Interaction → Foreign Language Enjoyment	0.41	0.07	6.01	<.001	0.47
Classroom Interaction → Willingness to Communicate	0.29	0.06	4.83	<.001	0.33
Peer Support → Foreign Language Enjoyment	0.45	0.05	9.12	<.001	0.50
Peer Support → Willingness to Communicate	0.21	0.06	3.50	.001	0.24
Foreign Language Enjoyment → Willingness to Communicate	0.48	0.07	6.90	<.001	0.52

Mediation Effect Testing

Bootstrapping procedures with 5,000 resamples were conducted to test the mediating and serial mediating effects among variables. Table 4 presents the indirect effects and corresponding confidence intervals. The results indicated that peer support significantly mediated the relationship between classroom interaction and willingness to communicate. Foreign language enjoyment also served as a significant mediator. Additionally, a significant serial mediation effect was observed, indicating that classroom interaction influenced willingness to communicate sequentially through peer support and foreign language enjoyment.

Table 4: Mediation Effects

Path	Effect Type	Estimate	Lower	Upper	p
Classroom Interaction → Peer Support → WTC	Indirect	0.11	0.05	0.18	.002
Classroom Interaction → FLE → WTC	Indirect	0.20	0.12	0.29	<.001
Peer Support → FLE → WTC	Indirect	0.24	0.15	0.34	<.001
Classroom Interaction → Peer Support → FLE → WTC	Serial Indirect	0.12	0.06	0.20	.001

Discussion

Direct Effect: Classroom Interaction and Willingness to Communicate

The present study found that classroom interaction had a significant and positive direct effect

on students' willingness to communicate (WTC) in foreign language contexts, confirming H1. This finding aligns with prior research emphasizing the centrality of interaction-rich learning environments in fostering communicative engagement (Liu et al., 2025; Lin & Wang, 2025). Classrooms that provide opportunities for meaningful dialogue, collaborative tasks, and interactive participation enable students to convert linguistic knowledge into active communication, consistent with the principles of communicative language teaching and sociocultural theory (Vygotsky, 1978).

The observed effect may be attributed to increased exposure to authentic language use, the immediate feedback received during interactions, and the establishment of social bonds that reduce communicative anxiety. Recent studies have shown that students in highly interactive classrooms are more likely to perceive language use as a safe and supportive activity, enhancing their readiness to initiate communication (Zhou et al., 2026). This result underscores the importance of structuring classroom activities that promote both student-student and teacher-student interaction as a direct strategy to improve WTC in applied linguistics and language pedagogy contexts.

Mediating Role: Peer Support and Foreign Language Enjoyment

The findings also demonstrated that peer support and foreign language enjoyment (FLE) individually mediated the relationship between classroom interaction and WTC, confirming H7, H8, and H9. Specifically, classroom interaction significantly enhanced peer support, which in turn increased WTC. This supports the notion that collaborative and socially supportive classroom environments provide emotional and academic scaffolding that empowers students to participate more actively (Fan et al., 2024). Peer support not only reduces the fear of negative evaluation but also promotes cooperative engagement, confirming previous findings that social relationships are critical drivers of communicative readiness (Ryan & Patrick, 2001; Dewaele & Li, 2021).

Similarly, foreign language enjoyment mediated the relationship between classroom interaction and WTC. Interactive classrooms that encourage active participation and positive experiences foster enjoyment, which motivates students to communicate more willingly (Dewaele & MacIntyre, 2014; Lin & Wang, 2025). This aligns with the broaden-and-build theory, which posits that positive emotions broaden cognitive and social resources, enabling learners to engage more fully in communication (Fredrickson, 2001). The significant mediation effects highlight that classroom interaction indirectly promotes WTC by enhancing students' emotional engagement and perception of social support, emphasizing the importance of integrating both socio-emotional and pedagogical strategies in foreign language teaching.

Chain Mediating Role of Peer Support and Foreign Language Enjoyment

Importantly, the study revealed a significant serial mediation effect, where classroom interaction influenced WTC through peer support and subsequently foreign language enjoyment, confirming H11. This chain mechanism indicates that interactive classrooms first strengthen social connections among learners, which then enhance emotional experiences and positive attitudes toward language use. The findings corroborate recent research suggesting that socio-emotional pathways play a pivotal role in transforming classroom participation into active communicative behavior (Lan & Hu, 2025; Zhang et al., 2024).

The serial mediation effect underscores the interdependence of social and emotional factors in language learning. Peer support not only directly facilitates communication but also fosters enjoyable experiences by reducing anxiety and promoting confidence in language tasks, which subsequently increases WTC. This integrative perspective contributes to a more

nuanced understanding of the socio-emotional mechanisms underlying willingness to communicate, offering a conceptual advancement over prior studies that often examined peer support and FLE in isolation (Zhou et al., 2026; Namaziandost et al., 2025). For practitioners, these results suggest that designing classrooms that simultaneously cultivate supportive peer networks and enjoyable learning experiences can maximize students' communicative engagement, supporting contemporary trends in learner-centered pedagogy.

Conclusion

This study examined the complex interplay between classroom interaction, peer support, foreign language enjoyment, and willingness to communicate among Pakistani university students. Consistent with theoretical predictions and recent empirical evidence, results revealed that classroom interaction significantly enhances students' willingness to communicate both directly and indirectly through socio-emotional mechanisms. Specifically, peer support and FLE not only functioned as independent mediators but also operated in sequence to transmit the benefits of interaction to communicative willingness. These findings contribute to a more comprehensive understanding of how environmental, social, and emotional factors collectively shape learner communication behavior in second language contexts.

The observed direct effect of classroom interaction underscores the centrality of interactive pedagogies in facilitating communicative competence, aligning with contemporary SLA frameworks that emphasize meaningful engagement over rote language instruction (Liu et al., 2025; Lin & Wang, 2025). Furthermore, the mediating roles of peer support and FLE highlight the importance of socio-emotional processes in classroom environments, extending previous research that often treated these constructs in isolation (Fan et al., 2024; Dewaele & Li, 2021). The presence of chain mediation further suggests a dynamic mechanism whereby interaction fosters supportive peer relations that, in turn, enrich enjoyment and motivational readiness, ultimately increasing students' willingness to communicate. Collectively, these findings support a more integrative socio-affective model of communicative engagement that bridges interactional opportunities with emotional experience and social support.

From a pedagogical perspective, the results suggest that educators should actively cultivate interaction-rich learning environments, promote collaborative peer networks, and prioritize activities that enhance learner enjoyment. Such strategies can foster not only linguistic competence but also the psychological readiness needed for authentic communicative behavior. These implications carry relevance across diverse educational settings where communicative goals are central to language instruction, supporting the broader movement toward learner-centered and affectively supportive pedagogies in applied linguistics.

Limitations and Future Research Directions

Despite its contributions, the present study has several limitations that highlight avenues for future research. First, the cross-sectional design limits causal inferences among the constructs examined. While structural equation modeling allowed for testing of directional paths, longitudinal or experimental designs would better establish causal precedence and developmental trajectories of willingness to communicate. Recent literature suggests the need for longitudinal data to unravel how emotional and social experiences evolve over time within interactive classroom contexts (Murphey & Arao, 2024; Zhang et al., 2024).

Second, although this study incorporated both online and face-to-face data collection to enhance generalizability, the use of convenience sampling restricts the representativeness of the sample. Future research could employ stratified or random sampling across institutions

and proficiency levels to improve generalization and capture a wider range of learner experiences (Boudreau et al., 2025). Additionally, while the present study focused on university learners, research involving younger populations (e.g., secondary school learners) may reveal developmental differences in the socio-emotional mechanisms underlying WTC (Hiver & Al-Hoori, 2025).

Third, the exclusive reliance on self-report measures raises the possibility of common method bias and subjective response effects. Although statistical remedies such as Harman's single-factor test and confirmatory factor modeling help mitigate these concerns, future studies should incorporate multimodal data sources for example, classroom observations, teacher reports, or digital interaction logs to triangulate findings and reduce mono-method effects (Li & Zhang, 2025; Sato & Suzuki, 2025). Incorporating psychophysiological measures of emotional engagement, such as heart rate variability or eye-tracking, may also enrich understanding of the affective dimensions of FLE and WTC.

Furthermore, while this research focused on peer support and enjoyment as mediating mechanisms, other socio-affective variables such as teacher support, anxiety, motivation, and self-efficacy likely play significant roles in influencing communication readiness. For instance, anxiety has consistently been shown to negatively influence WTC and may interact with enjoyment in complex ways (Li, 2024; Zhang et al., 2024). Future research should consider testing moderated mediation models that integrate both positive and negative emotional factors, as well as contextual moderators such as task type, cultural norms, and classroom climate.

Finally, emerging digital and hybrid learning environments present new contexts in which classroom interaction and socio-emotional experiences operate differently. Recent studies highlight that computer-mediated communication, AI-assisted language learning, and virtual collaboration platforms may uniquely shape student engagement and affective responses (Zhou et al., 2026). Future work should investigate the dynamics of peer support and enjoyment in technologically mediated contexts, exploring whether the patterns observed in traditional classrooms hold in blended or fully online environments.

Addressing these limitations will not only strengthen the empirical foundations of communicative engagement research but also inform more nuanced pedagogical interventions that accommodate diverse learner needs, contexts, and technologies.

Acknowledgment

Thanks to Dr. Amar Ilyas, who guide us on every phase of this manuscript.

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