Exploring the Role of Peer Interaction in Enhancing English Speaking Fluency among Year 2 TESL Undergraduates at a Malaysian Private University

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DOI : https://doi.org/10.47772/IJRISS.2026.102400014

Received: 20 August 2026; Accepted: 25 August 2026; Published: 25 September 2026

ABSTRACT

Developing spoken English fluency continues to be a major challenge for many English as a Second Language (ESL) learners in Malaysian higher education. This issue is particularly important for Teaching English as a Second Language (TESL) undergraduates, whose future careers require them to communicate confidently and effectively in English. Recognising the importance of collaborative learning, this study explored how peer interaction contributes to improving English speaking fluency among Year 2 TESL undergraduates at a private university in Malaysia. Grounded in Sociocultural Theory, the study focused on three aspects of peer interaction interaction frequency, interaction quality, and peer feedback and examined how these factors relate to students' self-perceived speaking fluency. In addition, the study compared students' perceptions of structured and unstructured peer interaction activities in supporting fluency development. A quantitative correlational approach was employed. Data were collected from 147 TESL undergraduates using a validated 30-item online questionnaire. The responses were analysed using descriptive statistics, reliability analysis, normality testing, Pearson correlation, and multiple linear regression through SPSS. The findings revealed that all three dimensions of peer interaction were positively and significantly associated with students' speaking fluency. Among the three, interaction quality demonstrated the strongest relationship with fluency ($r = .58$, $p < .001$). The regression analysis further showed that the three predictors collectively explained 44.9% of the variance in speaking fluency. Interaction quality emerged as the strongest predictor ($\beta = .45$), followed by peer feedback ($\beta = .39$) and interaction frequency ($\beta = .31$). Students also perceived structured peer activities to be more beneficial than unstructured interactions for improving spoken English. Furthermore, participants believed that engaging with peers helped reduce speaking anxiety, increased confidence, and encouraged them to take greater communicative risks when using English. Overall, the findings highlight the important role of well-designed peer interaction in supporting the development of speaking fluency among TESL undergraduates. The study suggests that incorporating structured, feedback-oriented peer learning activities into TESL programmes can strengthen students' oral communication skills while creating a more supportive and engaging learning environment. These findings also offer useful insights for teacher educators, curriculum developers, and higher education policymakers seeking to enhance English language teaching in multilingual university settings.

Keywords: peer interaction, speaking fluency, TESL undergraduates, sociocultural theory, speaking anxiety

INTRODUCTION

English functions as the principal second language of Malaysia and as an essential gateway to academic achievement, employability, and participation in global communication. Within Malaysia's multicultural and multilingual society, in which Malay, Chinese, Indian, and indigenous communities interact daily, English serves as a lingua franca that supports cross-cultural understanding and national socioeconomic competitiveness (Thirusanku & Yunus, 2014). The country's international visibility is also increasingly constructed within globalized, English-mediated communication environments, which further elevates the

importance of communicative competence among its graduates

Despite these aspirations, a persistent asymmetry exists between Malaysian learners' receptive and productive English skills. International benchmarking consistently places Malaysia among the higher performing Asian nations in overall English proficiency, yet speaking remains the weakest band relative to reading and listening (EF Education First, 2024). This gap is especially consequential for TESL undergraduates, for whom spoken fluency is not merely a linguistic attainment but a professional prerequisite. Future English teachers must manage classroom discourse, model target language use, deliver micro-teaching sessions, and respond spontaneously to learners, and hesitant or dysfluent speech directly undermines instructional effectiveness. Malaysian studies repeatedly document that ESL undergraduates struggle with hesitation, slow speech rate, lexical gaps, and elevated speaking anxiety that suppresses classroom participation (Kashinathan & Abdul Aziz, 2021; Miskam & Saidalvi, 2019; Nadesan & Md. Shah, 2020).

A substantial part of this problem is pedagogical. Malaysian ESL classrooms have historically emphasized accuracy, grammar, memorization, and teacher-centred instruction rather than communicative language use (Paneerselvam & Mohamad, 2019). Such practices develop declarative knowledge of the language but provide limited opportunities for the extensive, meaning-focused oral practice through which fluency is proceduralized (Segalowitz, 2010). In response, interaction-based pedagogies, including structured pair work, role play, information-gap tasks, and collaborative discussion, have attracted growing attention as accessible and low-cost mechanisms for fluency development. A robust body of second language acquisition research demonstrates that peer interaction creates conditions for negotiation of meaning, corrective feedback, and repeated retrieval of linguistic forms, all of which support the automatization that underlies fluent speech (Loewen & Sato, 2018; Philp et al., 2014; Sato & Ballinger, 2016). Peer interaction may be particularly powerful in Malaysian settings, where collectivist cultural orientations foster interpersonal comfort and sustained engagement among learners.

Nevertheless, an empirical gap remains. Although the benefits of interaction are well established internationally, comparatively little quantitative evidence exists on how specific dimensions of peer interaction, namely its frequency, its quality, and the feedback it generates, relate to speaking fluency among Malaysian TESL undergraduates, and on whether structured and unstructured interactional contexts yield different perceived outcomes. Year 2 students represent a critical developmental window because they are transitioning from foundational coursework toward applied pedagogical tasks such as micro-teaching, yet anecdotal and institutional evidence suggests that fluency growth frequently plateaus at this stage. Accordingly, the present study pursued four objectives: (1) to determine the current level of self-perceived English speaking fluency among Year 2 TESL undergraduates; (2) to examine the relationship between peer interaction (frequency, quality, and feedback) and English speaking fluency; (3) to identify differences in perceived fluency outcomes across structured and unstructured peer interaction contexts; and (4) to explore students' perceptions of how peer interaction influences their fluency development, including its effects on speaking anxiety, attitudes, and motivation. Four parallel research questions guided the study. By addressing these objectives within a Malaysian private university, the study contributes context-sensitive evidence to the international literature on peer-mediated fluency development and offers actionable guidance for TESL curriculum design.

LITERATURE REVIEW

Theoretical Framework: Sociocultural Theory

This study is anchored in sociocultural theory (SCT), which conceptualizes language learning as a fundamentally social process mediated by interaction rather than the product of isolated individual practice (Lantolf & Poehner, 2014; Vygotsky, 1978). Central to SCT is the Zone of Proximal Development (ZPD), the distance between what a learner can accomplish independently and what the learner can accomplish with assistance from a more capable peer or expert. During peer interaction, learners co-construct meaning, receive contingent assistance, and gradually internalize linguistic resources, which allows performance that was initially other-regulated to become self-regulated and automatic. Contemporary interactionist accounts

complement this view by specifying the mechanisms through which interaction benefits acquisition: negotiation of meaning draws attention to gaps between learner output and target forms, feedback provides evidence about the acceptability of utterances, and pushed output obliges learners to retrieve and restructure their interlanguage in real time (Long, 1996; Loewen & Sato, 2018). Within this framework, the three peer interaction dimensions examined in this study, frequency, quality, and feedback, correspond respectively to the amount of mediated practice, the depth of collaborative meaning-making, and the assistance provided within the ZPD.

Conceptualizing Second Language Speaking Fluency

Speaking fluency is a multidimensional construct encompassing temporal, prosodic, cognitive, and interactional components. In its narrow, utterance-based sense, fluency refers to the smoothness and speed of speech, operationalized through measures such as speech rate, mean length of run, pause frequency, and repair phenomena (de Jong, 2018; Tavakoli & Wright, 2020). Segalowitz (2010) distinguishes cognitive fluency, the efficiency of the underlying processes of lexical retrieval and syntactic encoding, from utterance fluency, the observable temporal characteristics of speech, and perceived fluency, listeners' impressions of a speaker's ease of expression. Meta-analytic evidence confirms that utterance measures, particularly speed and composite pause measures, are strong correlates of perceived fluency judgments (Suzuki et al., 2021), and that fluency is empirically separable from, although related to, complexity and accuracy in second language speech (Suzuki & Kormos, 2020). Importantly for the present study, fluency also has an interactional dimension: in dialogue, speakers deploy turn-taking, backchannelling, and collaborative repair to maintain communicative flow, which means that fluency development is partly a matter of learning to speak with others rather than merely to speak quickly.

From a skill acquisition perspective, fluency emerges through proceduralization and automatization, which require repeated, meaning-focused opportunities to use the language under real-time pressure. Classroom research demonstrates that fluency is teachable: targeted awareness-raising and fluency-oriented practice produce measurable gains over relatively short periods (Tavakoli et al., 2016), task repetition improves speed and reduces pausing (Lambert et al., 2017; Tavakoli & Wright, 2020), and communicative, learner-centred approaches such as drama-based instruction significantly improve oral fluency and comprehensibility relative to traditional communicative instruction (Galante & Thomson, 2017). These findings collectively suggest that curricula which maximize meaningful oral production, rather than accuracy-focused drilling alone, are the most promising route to fluency.

Peer Interaction and Oral Development

Peer interaction refers to meaningful communication among learners of comparable status through activities such as pair discussion, collaborative tasks, role play, and group problem solving (Philp et al., 2014). Its pedagogical potential rests on several interlocking mechanisms. First, peer contexts multiply the amount of individual speaking time available to each learner relative to teacher-fronted instruction, thereby increasing practice opportunities essential for automatization. Second, peers provide feedback: experimental work by Sato and Lyster (2012) demonstrated that learners trained to provide corrective feedback to one another achieved significant gains in both accuracy and fluency, with fluency gains attributed to increased monitoring and proceduralization of linguistic knowledge. Third, the collaborative patterns learners adopt matter; Storch (2002) showed that genuinely collaborative dyads, characterized by high mutuality and equality, produce more instances of transfer of knowledge than dominant or passive pairings, indicating that the quality of interaction, not merely its occurrence, drives learning. Fourth, engagement in peer interaction can be deliberately cultivated: interaction strategy instruction increases learners' behavioural, cognitive, and social engagement during peer tasks (Dao, 2020), although engagement patterns vary with proficiency (Dao & McDonough, 2018) and with contextual beliefs about the value of peer work (Sato & Storch, 2022).

Empirical studies specifically targeting oral outcomes corroborate these mechanisms. Cooperative learning arrangements significantly improved EFL learners' speaking fluency relative to teacher-centred controls (Namaziandost et al., 2020), and longitudinal task-based research indicates that learner engagement during speaking tasks fluctuates but can be sustained through appropriate task design and interlocutor familiarity

(Aubrey et al., 2022). In the Malaysian context, systematic reviews report that interactive and mobile-assisted speaking activities enhance learners' willingness to speak and perceived oral competence (Rajendran & Yunus, 2021), while descriptive studies confirm that limited opportunities for authentic oral practice remain a core obstacle for ESL learners (Kashinathan & Abdul Aziz, 2021). Taken together, the literature identifies frequency of interaction, depth or quality of interaction, and feedback as the three most theoretically defensible dimensions through which peer interaction should influence fluency, and these three dimensions constitute the independent variables of the present study.

Structured and Unstructured Interactional Contexts

Peer interaction occurs in contexts that vary in the degree of pedagogical structure. Structured interactions, such as guided role plays, information-gap tasks, and scripted dialogues, embed explicit linguistic targets, clear goals, and predictable participation formats. Such tasks reduce planning burden and social uncertainty, which is hypothesized to lower anxiety and support more accurate, controlled production. Unstructured interactions, such as spontaneous conversations and open-ended group discussion, approximate naturalistic discourse, demand real-time improvisation, and encourage strategic competence and risk taking. Skill acquisition accounts suggest complementary contributions: structured tasks build controlled, accurate production that can subsequently be automatized, whereas unstructured tasks provide the unpredictable retrieval demands that consolidate automaticity (Segalowitz, 2010; Tavakoli & Wright, 2020). However, few studies in Malaysian tertiary contexts have directly compared learners' perceptions of the two formats, and the present study addresses this gap by examining perceived fluency benefits across both.

Speaking Anxiety, Attitudes, and Motivation

Affective variables condition how much benefit learners derive from interactional opportunities. Foreign language anxiety, first systematized by Horwitz et al. (1986), exhibits a robust negative association with second language achievement; meta-analyses estimate the overall anxiety-achievement correlation at approximately r = -.36 (Teimouri et al., 2019; see also Botes et al., 2020). Anxiety consumes working memory resources, disrupts lexical access, and increases self-repair and pausing, which directly degrades temporal fluency. Recent longitudinal evidence suggests the relationship is partly reciprocal, with low achievement also feeding subsequent anxiety (Alamer & Lee, 2021). Malaysian undergraduates report moderate to high speaking anxiety, particularly in evaluative or public speaking situations (Miskam & Saidalvi, 2019). Crucially for this study, supportive interactional environments can buffer anxiety: positive psychology research demonstrates that enjoyment and supportive peer climates are associated with greater willingness to communicate and better performance (Botes et al., 2022; Dewaele & MacIntyre, 2014; Dewaele et al., 2023; Li & Wei, 2023; Wang et al., 2021), and low-anxiety practice environments, including technology-mediated ones, measurably reduce speaking anxiety (Bashori et al., 2022).

Attitudes and motivation similarly shape engagement with peer interaction. Within Gardner's (2010) socio-educational model, integrative and instrumental orientations energize sustained learning effort, while self-determination theory distinguishes intrinsic motivation, grounded in enjoyment and interest, from extrinsic motivation, grounded in external outcomes such as career advancement (Dörnyei, 1998; Dörnyei & Ryan, 2015; Ryan & Deci, 2020), with recent modelling showing that the satisfaction of basic psychological needs channels motivational orientations into effort and learning gains (Alamer, 2022). Positive attitudes toward English and toward collaborative learning predict voluntary practice and classroom participation among Malaysian learners (Getie, 2020; Zulkefly & Razali, 2019). Motivation is also self-regulatory in nature: learners who deploy self-regulated strategies exhibit stronger motivational beliefs and greater persistence in academic tasks (Rifin et al., 2025), and self-regulated speaking motivation specifically predicts speaking competence (Uztosun, 2021). Engagement research further shows that behavioural, cognitive, and emotional engagement jointly determine how much learning learners extract from any given opportunity (Hiver et al., 2024; Mercer & Dörnyei, 2020). The present study therefore incorporated learners' attitudes, motivation, and anxiety-related perceptions as integral components of how peer interaction is experienced.

The Present Study

Synthesizing the literature, three hypotheses were advanced. H1: Peer interaction frequency, peer feedback, and quality of peer interaction each correlate positively and significantly with self-perceived English-speaking fluency. H2: The three peer interaction dimensions jointly explain a significant proportion of variance in speaking fluency, with interaction quality expected to be the strongest predictor, consistent with evidence that the depth of collaborative engagement outweighs sheer quantity of contact (Storch, 2002; Sato & Lyster, 2012). H3: Structured peer interaction is perceived as more beneficial for fluency than unstructured interaction among Year 2 learners, whose developing proficiency benefits from the scaffolding that structure provides. The conceptual framework of the study is presented in Figure 1. Peer interaction constitutes the independent variable, operationalized through the moderating dimensions of interaction type, interaction frequency, and feedback quality, while English speaking fluency constitutes the dependent variable.

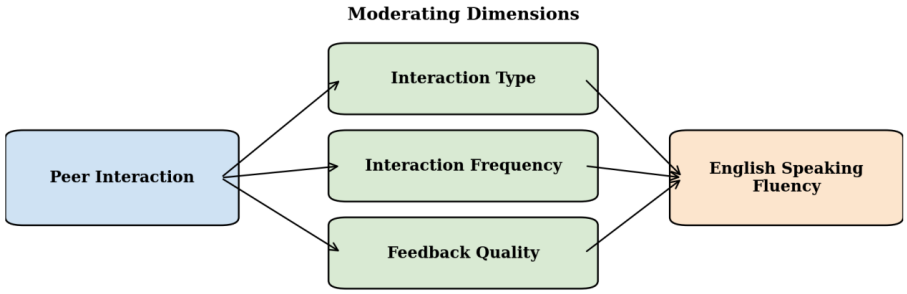

Figure 1. Conceptual Framework of the Study

METHODOLOGY

Research Design

A quantitative correlational survey design was adopted. This design is appropriate because the study sought to describe naturally occurring levels of peer interaction and fluency and to estimate the strength and direction of relationships among multiple continuous variables without experimental manipulation (Cohen et al., 2018; Creswell & Creswell, 2018). Correlational designs permit the simultaneous examination of several predictor dimensions and support regression-based estimation of their relative contributions, thereby generating evidence that can inform subsequent intervention studies. Although the design does not license causal claims, it aligns directly with the study's objectives of describing current fluency levels, quantifying interaction-fluency associations, and identifying the strongest predictors of fluency.

Participants and Sampling

The study was conducted at UNITAR International University, a private Malaysian institution whose Bachelor of Education (Hons) TESL programme enrols a linguistically diverse student body of Malay, Chinese, Indian, and indigenous backgrounds. The accessible population comprised approximately 150 TESL undergraduates. An a priori power analysis indicated that a minimum of approximately 100 respondents would provide 80% power to detect a moderate correlation ($r = .30$) at alpha = .05. Participants were recruited through class WhatsApp groups, institutional email lists, and the learning management system using convenience sampling, a technique widely employed in educational survey research when the accessible population is bounded and time constrained (Etikan et al., 2016). To mitigate selection bias toward digitally active students, recruitment was supplemented with in-class announcements, and demographic representativeness was monitored during data collection. A total of 147 valid responses were obtained, exceeding the minimum sample size requirement. The final sample comprised 60.5% female and 39.5% male respondents, with the largest age band being 21 to 23 years (43.5%); the demographic profile is

detailed in the Results section.

Instrument and Data Collection

Data were collected through a self-administered questionnaire of 30 items organized into four sections: (a) five demographic items covering gender, age, year of study, level of education, and native language; (b) fifteen peer interaction items measuring frequency (five items), quality (five items), and feedback (five items), adapted from constructs recurring in the peer interaction literature (Philp et al., 2014; Sato & Ballinger, 2016); (c) ten self-perceived speaking fluency items addressing perceived ease, pace, coherence, hesitation, and confidence, informed by established conceptualizations of utterance and perceived fluency (Suzuki et al., 2021; Tavakoli & Wright, 2020); and (d) perception items on structured versus unstructured contexts, anxiety reduction, attitudes, and motivation. All substantive items employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Self-report measures of this kind are standard in second language survey research, and their quality depends on demonstrated reliability and careful item design (Sudina, 2021). The instrument was pilot tested with 20 undergraduates who were excluded from the main sample. The pilot yielded strong internal consistency (Cronbach's alpha = .88) and acceptable two-week test-retest reliability (r = .79), and minor wording refinements were made to improve clarity and cultural appropriateness. The finalized questionnaire was administered through Google Forms over a two-week window, preceded by a participant information sheet and informed consent statement. Participation was voluntary and anonymous, no identifying information was collected, and respondents could withdraw at any point before submission. Mid-week reminders supported the response rate, and completion required approximately 10 to 15 minutes.

Data Analysis

Responses were exported to SPSS version 27. Descriptive statistics (frequencies, percentages, means, and standard deviations) summarized the demographic profile and the levels of peer interaction and fluency. Internal consistency of each subscale was evaluated with Cronbach's alpha, applying the conventional threshold of .70 for acceptability and .80 for good reliability (Taber, 2018). Distributional assumptions were assessed with Kolmogorov-Smirnov and Shapiro-Wilk tests supplemented by Q-Q plot inspection, following recommended practice for normality evaluation (Mishra et al., 2019). Pearson product-moment correlations quantified bivariate associations between the three peer interaction dimensions and speaking fluency, and an independent samples t-test compared perceptions of structured and unstructured contexts. Finally, a multiple linear regression estimated the joint and relative contributions of interaction frequency, feedback, and interaction quality to speaking fluency, with statistical significance set at $p < .05$.

RESULTS

Demographic Profile of Respondents

Table 1 summarizes the demographic characteristics of the 147 respondents. Females constituted the majority of the sample (60.5%), consistent with national enrolment patterns in teacher education programmes. Most respondents were aged 21 to 23 years (43.5%), followed by 18 to 20 years (27.9%), indicating a predominantly conventional undergraduate cohort. Respondents were distributed across years of study with the greatest concentration in Year 2 (32.0%) and Year 3 (29.9%), and degree-level students dominated the sample (62.6%). Reflecting Malaysia's multilingual landscape, Malay was the most common native language (41.5%), followed by Tamil (21.8%), English (19.0%), and Mandarin (17.7%). This linguistic heterogeneity strengthens the ecological validity of the study for multilingual tertiary contexts.

Table 1. Demographic profile of respondents (N = 147)

Variable	Category	Frequency	Percentage (%)
Gender	Male	58	39.5
	Female	89	60.5
Age	Below 18	6	4.1

	18-20	41	27.9
	21-23	64	43.5
	24-26	24	16.3
	Above 26	12	8.2
Year of study	Year 1	29	19.7
	Year 2	47	32
	Year 3	44	29.9
	Year 4	27	18.4
Level of education	Diploma	42	28.6
	Degree	92	62.6
	Postgraduate	13	8.8
Native language	Malay	61	41.5
	Tamil	32	21.8
	English	28	19
	Mandarin	26	17.7

Descriptive Statistics of the Main Constructs

Table 2 presents the descriptive statistics for the principal constructs. Respondents reported a moderately high overall level of self-perceived speaking fluency (M = 3.72, SD = 0.65), indicating functional but not effortless oral command, which is consistent with the transitional proficiency expected of second-year TESL students. Perceptions of peer interaction were positive across all dimensions. Structured peer interaction received a higher mean rating (M = 3.78, SD = 0.62) than unstructured peer interaction (M = 3.52, SD = 0.71), and an independent samples t-test confirmed that this difference was statistically significant, $t(145) = 4.56$, $p < .001$, supporting H3. Perceptions of peer interaction's influence on anxiety were also favourable: the highest rated item was the belief that overall fluency challenges are eased through peer collaboration (M = 3.91, SD = 0.66), followed by the perception that peer interaction reduces the fear of making mistakes when speaking English (M = 3.85, SD = 0.72). Attitudinal items were the most strongly endorsed overall, led by agreement that confidence in peer interaction is a key to speaking English as a second language (M = 4.31, SD = 0.66) and that peer interaction is important for fluency success (M = 4.25, SD = 0.69). Motivation items revealed predominantly positive orientations, with instrumental motives especially salient: the belief that peer interaction in English is important for one's career recorded the highest single mean in the questionnaire (M = 4.59, SD = 1.15). Conversely, negatively worded items concerning the lasting impact of past negative peer experiences attracted low agreement (M = 2.55 to 2.95), suggesting that adverse experiences had not generalized into avoidance for most respondents.

Table 2. Descriptive statistics of the main study constructs

Construct	Items	Mean	SD
Self-perceived speaking fluency	10	3.72	0.65
Peer interaction: frequency	5	3.61	0.68
Peer interaction: feedback	5	3.76	0.66
Peer interaction: quality	5	3.69	0.64
Structured peer interaction	-	3.78	0.62
Unstructured peer interaction	-	3.52	0.71
Perceived anxiety reduction through peers	6	3.76	0.7
Attitudes toward peer interaction	10	3.98	0.69
Intrinsic and extrinsic motivation	8	3.54	1.21
Instrumental and integrative motivation	10	3.94	1.15

Reliability Analysis

Cronbach's alpha coefficients were computed for each subscale (Table 3). All subscales exceeded the .80 benchmark for good reliability, and the full 35-item instrument achieved an alpha of .89. Corrected item-total correlations ranged from .45 to .72, and no item's removal would have meaningfully improved any

alpha, indicating that all items contributed constructively to their scales. These values satisfy accepted standards for research instruments in education (Taber, 2018) and support the internal consistency of the adapted questionnaire in the Malaysian TESL context.

Table 3. Reliability statistics for the questionnaire subscales

Subscale	No. of items	Cronbach's alpha	Item-total correlation range
Peer interaction	15	0.85	.52-.70
Speaking fluency	10	0.88	.48-.72
Perceptions of influence	10	0.87	.45-.68
Overall questionnaire	35	0.89	.46-.71

Normality Analysis

Kolmogorov-Smirnov and Shapiro-Wilk tests were significant for all four principal variables (all $p < .001$), formally indicating departures from normality (Table 4). However, visual inspection of Q-Q plots showed that data points for each variable clustered closely around the diagonal with only mild deviations at the distribution tails, a pattern attributable to the bounded Likert response format and mild negative skew arising from generally positive responding. Given the sample size of 147, the central limit theorem, and the approximate symmetry evident in the Q-Q plots, parametric procedures were retained for the main analyses (Mishra et al., 2019), while Spearman's rho was computed as a sensitivity check and produced the same pattern of significant positive associations.

Table 4. Tests of normality for the principal variables

Variable	Kolmogorov-Smirnov	Sig.	Shapiro-Wilk	Sig.
Peer interaction frequency	0.124	0	0.941	0
Peer feedback	0.157	0	0.944	0
Quality of peer interaction	0.124	0	0.941	0
Speaking fluency	0.158	0	0.944	0

Correlation Analysis

Pearson correlations between the three peer interaction dimensions and speaking fluency are reported in Table 5. All three associations were positive and statistically significant at $p < .001$, supporting H1. Quality of peer interaction exhibited the strongest correlation with fluency ($r = .58$), a large effect by conventional standards, followed by peer feedback ($r = .51$) and interaction frequency ($r = .42$), both moderate to strong effects. The ordering of the coefficients is theoretically meaningful: the depth and constructiveness of interaction relate more strongly to fluency than the sheer amount of interaction, echoing findings that collaborative orientation and feedback provision, rather than mere co-presence, drive learning in peer contexts (Sato & Lyster, 2012; Storch, 2002).

Table 5. Pearson correlations between peer interaction dimensions and speaking fluency (N = 147)

Variable	Pearson r	Sig. (2-tailed)	Interpretation
Peer interaction frequency	0.42	< .001	Moderate positive
Peer feedback	0.51	< .001	Moderate-strong positive
Quality of peer interaction	0.58	< .001	Strong positive

Regression Analysis

A multiple linear regression was conducted with speaking fluency as the criterion and the three peer interaction dimensions as predictors (Table 6). The overall model was statistically significant, $F(3, 143) = 38.92$, $p < .001$, and explained 44.9% of the variance in speaking fluency (R squared = .449, adjusted R squared = .437), a substantial proportion for a survey study of psychological constructs. All three predictors contributed significantly and positively. Quality of peer interaction was the strongest predictor ($B = 0.41$, beta = .45, $t = 5.13$, $p < .001$), followed by peer feedback ($B = 0.34$, beta = .39, $t = 5.67$, $p < .001$) and interaction frequency ($B = 0.28$, beta = .31, $t = 4.02$, $p < .001$), supporting H2. Figure 2 visualizes the standardized coefficients. The unstandardized coefficients indicate that each one-point increase in perceived interaction quality is associated with a 0.41-point increase in perceived fluency, holding the other dimensions constant.

Table 6. Multiple regression predicting speaking fluency from peer interaction dimensions

Predictor	B	SE	Beta	t	Sig.
(Constant)	1.12	0.34	-	3.29	0.001
Peer interaction frequency	0.28	0.07	0.31	4.02	< .001
Peer feedback	0.34	0.06	0.39	5.67	< .001
Quality of peer interaction	0.41	0.08	0.45	5.13	< .001

Note. R squared = .449, adjusted R squared = .437, $F(3, 143) = 38.92$, $p < .001$.

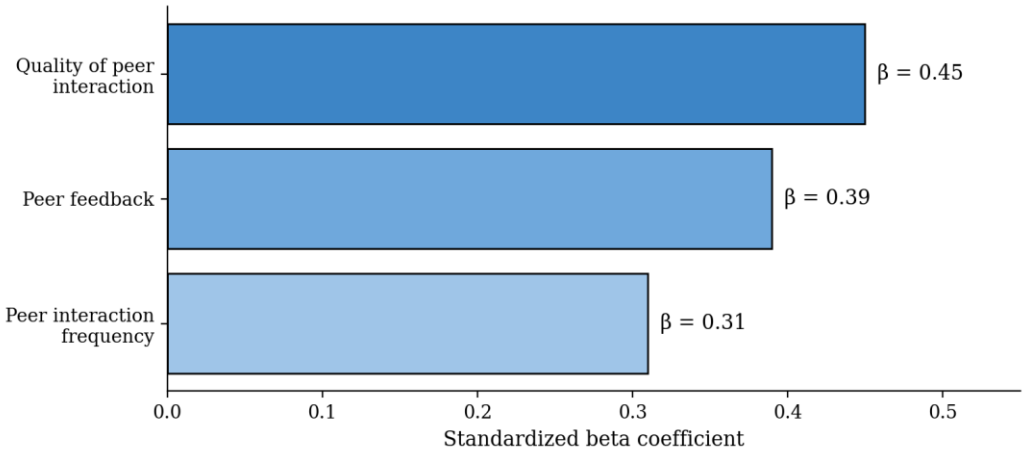

Figure 2. Standardized beta coefficients for the three peer interaction predictors of speaking fluency

DISCUSSION

Current Level of Speaking Fluency (RQ1)

The first research question concerned the current level of self-perceived English-speaking fluency among Year 2 TESL undergraduates. The overall fluency mean of 3.72 situates the cohort in a moderately high but clearly incomplete band of self-assessed oral competence: students perceive themselves as able to sustain communication yet continue to experience hesitation, pausing, and vocabulary retrieval difficulties. This profile is consistent with the broader Malaysian evidence base, in which productive speaking lags behind receptive skills at the tertiary level (EF Education First, 2024; Kashinathan & Abdul Aziz, 2021; Nadesan & Md. Shah, 2020). Theoretically, the pattern reflects incomplete automatization: second-year students possess substantial declarative knowledge of English accumulated through eleven or more years of formal schooling, but the cognitive fluency that converts that knowledge into rapid, low-effort speech production develops only through extensive meaning-focused practice (Segalowitz, 2010; Tavakoli & Wright, 2020). The finding

therefore confirms that a fluency development need genuinely exists at this stage of the TESL programme and that it cannot be assumed to resolve spontaneously as content knowledge accumulates. For a teacher education programme, this is a consequential observation, because unresolved dysfluency at Year 2 propagates into micro-teaching performance in subsequent years and, ultimately, into classroom instructional quality.

Peer Interaction Dimensions and Fluency (RQ2)

The second research question addressed the relationship between the three peer interaction dimensions and speaking fluency. All three dimensions correlated significantly and positively with fluency, and together they accounted for nearly half of the variance in fluency perceptions. Three aspects of this result merit detailed interpretation. First, the primacy of interaction quality ($r = .58$, beta = .45) indicates that what happens inside peer exchanges matters more than how often they occur. High-quality interaction in this study encompassed deep negotiation of meaning, clarification of ideas, experimentation with vocabulary and pronunciation, and mutually challenging exchanges. This aligns closely with Storch's (2002) demonstration that collaborative dyads exhibiting high equality and mutuality generate the greatest transfer of linguistic knowledge, and with sociocultural theory's core claim that development occurs within the ZPD through contingent, jointly constructed assistance rather than through mere exposure (Lantolf & Poehner, 2014; Vygotsky, 1978). In practical terms, a small number of cognitively rich peer discussions appears to be worth more than many superficial ones.

Second, the strong contribution of peer feedback ($r = .51$, beta = .39) corroborates experimental evidence that peer corrective feedback promotes both monitoring and proceduralization. Sato and Lyster (2012) found that learners who exchanged corrective feedback during peer tasks improved significantly in fluency as well as accuracy, arguing that feedback-rich interaction encourages learners to notice gaps and to rehearse repaired forms until retrieval becomes automatic. Respondents in the present study echoed this mechanism at the perceptual level: they reported that instant recasts and suggestions from peers improved fluency on the spot, that feedback reduced hesitation in subsequent attempts, and that peer feedback helped them internalize language forms for more automatic speech. The interactionist account of feedback as a source of negative evidence and pushed output (Long, 1996; Loewen & Sato, 2018) is thereby supported within a Malaysian tertiary sample. Notably, respondents emphasized that peer feedback felt non-judgmental and encouraged renewed attempts, which suggests that the affective framing of feedback, not only its informational content, underlies its effectiveness.

Third, although interaction frequency was the weakest of the three predictors, its independent significance (beta = .31) should not be dismissed. Automatization requires volume of practice; no amount of interactional quality can compensate for near-zero speaking opportunities. The finding that frequency contributes uniquely, even after quality and feedback are controlled, is consistent with skill acquisition accounts in which repeated retrieval under communicative pressure consolidates procedural knowledge (Lambert et al., 2017; Segalowitz, 2010) and with cooperative learning studies in which increased talk time translated into measurable fluency gains (Namaziandost et al., 2020). The appropriate pedagogical inference is therefore not that frequency is unimportant, but that frequency operates as a necessary platform whose returns are amplified when interactions are also deep and feedback rich.

Structured Versus Unstructured Contexts (RQ3)

The third research question compared perceived fluency outcomes across structured and unstructured peer interaction contexts. Structured activities were rated significantly more beneficial ($M = 3.78$) than unstructured ones ($M = 3.52$). Several converging explanations are plausible. Structured tasks such as guided role plays and information-gap activities supply clear communicative goals, distribute participation rights, and reduce the social unpredictability that fuels speaking anxiety; respondents indeed reported performing with fewer hesitations in structured group role plays and finding feedback more effective in structured settings. For learners at an intermediate, transitional stage of proficiency, such scaffolding lowers cognitive and affective load, freeing attentional resources for formulation and delivery. This interpretation coheres with task-based research showing that task design features materially shape engagement and

performance (Aubrey et al., 2022) and with evidence that lower-anxiety practice conditions yield better oral outcomes (Bashori et al., 2022). At the same time, unstructured interaction was far from disparaged: respondents agreed that casual peer chats

encourage risk taking without judgment and allow more creative, flexible speaking practice. This pattern supports a complementarity account in which structured tasks build controlled accuracy and confidence while unstructured tasks supply the improvisational retrieval demands through which automaticity is consolidated (Tavakoli & Wright, 2020). A curriculum that sequences structured tasks first and progressively releases learners into freer interaction is the natural pedagogical translation of this finding.

Perceptions of Peer Interaction, Anxiety, Attitudes, and Motivation (RQ4)

The fourth research question explored how students perceive the influence of peer interaction on their fluency development. The perception data portray peer interaction as functioning simultaneously through cognitive-linguistic and affective channels. On the affective side, the most strongly endorsed anxiety item held that overall fluency challenges are eased through peer collaboration (M = 3.91), and respondents agreed that peer interaction reduces the fear of making mistakes (M = 3.85). Given the well-documented negative association between anxiety and second language achievement (Botes et al., 2020; Teimouri et al., 2019) and the disruptive effect of anxiety on temporal fluency, this anxiety-buffering function may itself constitute a mechanism of fluency gain: by lowering the affective filter, peer contexts allow learners to produce more speech, take more risks, and accumulate the practice that automatization requires. The result also resonates with positive psychology findings that enjoyment and supportive social climates promote willingness to communicate (Botes et al., 2022; Dewaele & MacIntyre, 2014; Wang et al., 2021), and with Malaysian evidence that anxiety is a principal barrier to oral participation (Miskam & Saidalvi, 2019).

Attitudinal and motivational findings reinforce this picture. Respondents overwhelmingly regarded confidence in peer interaction as key to speaking English (M = 4.31), viewed peer interaction as important for fluency success (M = 4.25), and actively sought peer opportunities outside class (M = 4.02), while instrumental motives, particularly career relevance (M = 4.59), emerged as the single most powerful motivational driver. These orientations are coherent with the socio-educational model, in which favourable attitudes energize sustained effort (Gardner, 2010), with self-determination theory's account of internalized extrinsic motivation as a robust fuel for persistence (Ryan & Deci, 2020), and with evidence that self-regulated, strategy-driven learners maintain stronger motivational beliefs (Rifin et al., 2025) and higher speaking competence (Uztosun, 2021). Meanwhile, the low endorsement of items describing lasting damage from past negative peer experiences (M = 2.55 to 2.95) indicates a resilient cohort whose current attitudes are not held hostage by earlier setbacks, although the moderate agreement that students still seek improvement despite such experiences (M = 3.82) signals that negative episodes do occur and must be managed through norms of respectful feedback. Collectively, the perception data suggest that peer interaction succeeds not only because it supplies linguistic input, output, and feedback, but because it constructs a social environment in which Malaysian learners, embedded in collectivist norms that can otherwise discourage conspicuous individual performance, feel safe to speak.

Theoretical Implications

The findings carry three theoretical implications. First, they extend sociocultural theory's ecological validity by demonstrating, in a multilingual Malaysian tertiary sample, that the quality of mediated interaction predicts perceived development more strongly than its quantity, exactly as a ZPD-based account would anticipate. Second, they support an integrated cognitive-affective model of fluency development in which peer interaction operates through dual pathways: a practice-and-feedback pathway that drives proceduralization, and an anxiety-reduction pathway that enlarges the space for practice to occur. Third, the observed advantage of structured over unstructured contexts refines interactionist claims by suggesting that the optimal interactional diet is proficiency-sensitive: at transitional proficiency, scaffolded structure amplifies the benefits of interaction, whereas fully naturalistic interaction may realize its potential later in development. These propositions are testable in future longitudinal and experimental designs.

Practical Implications

Practically, the results argue for the systematic institutionalization of peer interaction in TESL curricula rather than its treatment as an optional enrichment. Course designers should embed weekly structured communicative tasks, such as guided role plays, information-gap activities, and collaborative problem solving, and should explicitly train students to give constructive, non-judgmental corrective feedback, since feedback quality was the second strongest predictor of fluency. Because interaction quality mattered most, instructors should monitor and coach the collaborative dynamics of pairs and groups, intervening to convert dominant-passive patterns into genuinely collaborative ones (Storch, 2002). Teacher educators should also deliberately sequence structured tasks before unstructured discussion to manage anxiety, and should cultivate classroom climates in which errors are treated as learning resources. These recommendations align with the Malaysia Education Blueprint's emphasis on communicative competence in teacher preparation (Ministry of Education Malaysia, 2013) and are timely given evidence that inadequately prepared teachers compromise instructional quality across subject areas (Sibiya & Khoza, 2025). At the institutional level, universities can create low-stakes speaking ecologies, such as peer conversation clubs, buddy systems pairing stronger and weaker speakers, and online peer exchange platforms, that extend interactional opportunities beyond scheduled classes. Finally, because instrumental career motives were the strongest motivational endorsement, programmes should make the professional payoff of fluency explicit, linking peer speaking tasks to authentic teaching scenarios such as micro-teaching rehearsal and classroom management discourse.

CONCLUSION

This study examined the role of peer interaction in enhancing English speaking fluency among Year 2 TESL undergraduates at a Malaysian private university. Drawing on 147 survey responses analysed through correlational and regression procedures, the study found that peer interaction frequency, peer feedback, and quality of peer interaction were all significantly and positively associated with self-perceived speaking fluency, jointly explaining 44.9% of its variance, with interaction quality the strongest predictor. Structured peer activities were perceived as more beneficial than unstructured ones, and peer interaction was credited with reducing speaking anxiety, strengthening confidence, and sustaining motivation, particularly career-oriented motivation. The study contributes context-sensitive Malaysian evidence to the international literature on peer-mediated fluency development and demonstrates that sociocultural and interactionist predictions hold within a multilingual private university setting.

Several limitations qualify these conclusions. Fluency was measured through self-report, which captures perceived rather than objectively measured fluency and is susceptible to social desirability and self-assessment bias; future studies should triangulate perceptions with acoustic measures of speech rate, pausing, and repair. The single-institution convenience sample constrains generalizability to other programmes, institutions, and cultural settings. The correlational design precludes causal inference, and the cross-sectional snapshot cannot trace developmental trajectories. Future research should therefore employ longitudinal and experimental designs that manipulate the structure, frequency, and feedback richness of peer tasks; incorporate qualitative interviews and interaction analysis to illuminate the micro-processes of peer scaffolding; compare effects across proficiency levels and disciplines; and investigate how emerging technologies, including artificial intelligence mediated conversation partners, can complement human peer interaction. Notwithstanding these limitations, the study delivers a clear message for TESL education: fluency grows in the company of peers, and it grows fastest when that company is frequent, constructive, and above all, of high quality.

ACKNOWLEDGEMENTS

The authors would like to thank UNITAR International University for supporting this research. The authors also thank the TESL undergraduates who voluntarily participated in the survey.

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