

Original Research

Verbal Engagement in ELT Classrooms: Classroom Climate and Speaking Behaviour in Papuan EFL Preservice Teachers

Amalia Lakehu^{1*}, Yafed Syufi¹, Novita Angelie Taroreh¹ & Sri Ningsih²

¹Universitas Papua, Manokwari, Indonesia,

²Akademi Kebidanan Tahirah Al Baeti Bulukumba, Indonesia.

Article Info

Article history:

Received 13 November 2025

Revised 25 February 2026

Accepted 27 February 2026

Keywords:

EFL teacher education

Self-concept

Lecturer credibility

Preservice English teachers

Speaking behaviour



Abstract

Despite the central role of oral communication competence in preparing future English teachers, empirical evidence on students' actual classroom verbal participation in Eastern Indonesian higher education remains limited. Preliminary classroom observations in the English Education Study Program at the University of Papua (UNIPA) indicated that participation was concentrated among a small group of students, while many remained passives during discussions and questioning sessions. This study aimed to describe patterns of students' verbal communication behaviour and examine their distribution across self-concept, perceived lecturer credibility, and classroom communication climate. A cross-sectional survey design was employed. From a population of 72 students, (42.86% male, 57.14% female) were selected using stratified random sampling with proportional and equal allocation. Data were collected through two structured Likert-scale questionnaires measuring verbal communication behaviour, self-concept, lecturer credibility, and classroom communication. Descriptive statistics (frequencies, percentages, and mean scores) were used for analysis. Results show that 45.71% of students actively asked questions and 48.57% actively answered questions. Participation was higher in discussions (61.71%) and presentations (62.86%). Overall, 54.29% were categorized as active communicators. A positive self-concept was reported by 91.43% of students, 91.43% perceived lecturers as credible, and 54.29% perceived classroom communication as active; among this group, 63.16% were active participants. These findings indicate uneven participation despite generally positive self-perceptions and lecturer credibility, underscoring the need for structured participation strategies and supportive classroom climates in culturally diverse teacher education contexts.

Corresponding Author: Lakehu, a.lakehu@unipa.ac.id.

1. Introduction

Silence in an English language classroom is never merely the absence of speech. It is a pedagogical signal, a reflection of learner positioning, and an indicator of how communicative competence is being constructed. In English as a Foreign Language (EFL) contexts, verbal interaction functions as both a medium and outcome of language acquisition. Language learning advances through negotiated meaning, feedback exchange, and purposeful discourse, rather than passive reception (Harmer, 2015; Richards & Rodgers, 2014). Interaction-driven pedagogies emphasize that communicative competence develops when learners actively participate in speaking, questioning, clarifying, and presenting ideas (Ellis, 2008; Dörnyei, 2001). Thus, patterns of classroom talk reveal not only linguistic proficiency but also the relational and psychological conditions shaping engagement.

Within teacher education, participation acquires an additional layer of significance. Preservice English teachers are not solely language learners; they are future facilitators of communicative environments. Their classroom speaking behaviours foreshadow how they may later orchestrate interaction in their own teaching.

Research consistently demonstrates that active participation enhances academic achievement, motivation, and language proficiency (Johnson, Johnson, & Smith, 2014; Gillies, 2016; Schunk & DiBenedetto, 2020). Psychological constructs such as self-concept and self-efficacy are strongly associated with engagement and persistence (Bandura, 1997; Pajares & Usher, 2008; Marszalek et al., 2022). At the same time, relational dynamics and environmental factors, including teacher credibility and classroom climate, influence students' willingness to speak (Schrodt et al., 2009; Myers & Martin, 2018; Ma et al., 2022). For preservice teachers, participation is therefore not only an academic behaviour but an early enactment of professional identity.

Despite extensive international scholarship on classroom participation, empirical evidence from Eastern Indonesian higher education remains limited. Much of the research on EFL participation has been conducted in Western or urban Asian institutions, where institutional cultures, linguistic backgrounds, and participation norms differ markedly from peripheral multilingual contexts. Studies frequently report that classroom talk is unevenly distributed, with a small group of confident students dominating interaction while others remain silent due to anxiety, sociocultural expectations, or perceived evaluative risk (Tatar, 2005). Gender dynamics may further shape participation patterns, as stereotype expectations and contextual cues influence speaking behaviour (Hyde, 2005; Spencer et al., 1999; Brigham & Porquet-Lupine, 2024). While these findings illuminate participation disparities, they are rarely situated within geographically and culturally diverse Indonesian regions.

Within Indonesia, EFL research has often focused on urban institutions or examined general motivational variables rather than detailed participation profiles in teacher education programs (Rachmawati, 2022; Galugu & Samsinar, 2019). Papua presents a distinctive sociocultural environment characterized by multilingualism, regional disparities in educational access, and diverse communicative norms. Such contextual features may influence how students interpret public speaking, classroom authority, and peer interaction. Yet systematic documentation of verbal communication behaviour among Papuan preservice English teachers remains scarce. Moreover, prior studies typically examine self-concept, lecturer credibility, or classroom climate independently. Although each construct has been linked theoretically to engagement (Bandura, 1997; Schunk & DiBenedetto, 2020; Schrodt et al., 2009; Myers & Martin, 2018; Ma et al., 2022), fewer investigations integrate these dimensions within a single cohort to explore how they co-occur in shaping participation. This gap is particularly consequential in teacher education, where communicative readiness has direct implications for future instructional practice.

Responding to these limitations, the present study profiles verbal communication behaviour among English Education students at the University of Papua. Its novelty lies in integrating psychological (self-concept), relational (lecturer credibility), and environmental (classroom communication climate) variables within a single descriptive framework in an underrepresented geographical setting. Rather than testing causal hypotheses, the study maps how participation patterns are distributed across these theoretically connected dimensions. By doing so, it extends participation research beyond metropolitan Indonesian contexts and foregrounds the intersection of communicative behaviour and teacher preparation in Eastern Indonesia.

The study holds both academic and practical significance. Academically, it provides geographically grounded evidence to global discussions on EFL classroom interaction, responding to calls for greater contextual representation in applied linguistics. Practically, strengthening preservice teachers' verbal communication is crucial for professional development, as limited experience in dialogue, questioning, and argumentation may hinder their ability to facilitate interactive classrooms aligned with communicative pedagogies (Richards & Rodgers, 2014; Harmer, 2015). Understanding participation patterns informs strategies that promote equitable engagement and communicative confidence. This study therefore examines verbal communication patterns among English Education students at UNIPA and their relationship to self-concept, lecturer credibility, and classroom communication climate. It is guided by two research questions: (1) What are the patterns of students' verbal communication behaviour? and (2) How are these behaviours distributed across the identified psychological and classroom variables?

In sum, verbal participation in EFL teacher education reflects a complex interplay of individual beliefs, relational trust, and environmental perception. By documenting participation patterns within a Papuan university context, this study contributes empirically grounded insight to participation scholarship while highlighting the formative role of communicative engagement in preservice teacher identity development. The findings underscore the importance of cultivating psychologically safe, dialogic classroom environments in ELT programs, particularly in culturally diverse and geographically underrepresented regions of Eastern Indonesia.

2. Literature Review

2.1 Verbal Participation in EFL Higher Education

Verbal participation is central to second language development in higher education because communicative competence emerges through meaningful interaction rather than passive exposure. Interaction-oriented ELT scholarship consistently positions classroom discourse as foundational to language acquisition (Harmer, 2015; Richards & Rodgers, 2014). From a second language acquisition perspective, Ellis (2008) emphasizes interaction as a mechanism for interlanguage development, while Dörnyei (2001) highlights its motivational function. Cooperative learning research further demonstrates that structured peer interaction enhances engagement and language production by promoting shared accountability and equitable talk distribution (Johnson, Johnson, & Smith, 2014; Gillies, 2016; Slavin, 2014). Across these traditions, participation is not peripheral but integral to EFL learning.

Despite theoretical consensus, empirical studies reveal that classroom talk is frequently uneven. Participation often concentrates within a confident minority, while others remain silent due to anxiety, sociocultural norms, or perceived evaluative risk (Tatar, 2005). Yet, Nakamura (2014) further shows that communicative preferences vary across cultural contexts where public speaking carries social consequences. However, much of this evidence derives from Western or urban Asian institutions. Research from geographically peripheral and culturally diverse regions, including Eastern Indonesia, remains limited, particularly within teacher education programs. This imbalance restricts the contextual scope of participation theory and underscores the need for geographically grounded investigation.

2.2 Self-Concept, Self-Efficacy, and Speaking Behaviour

Psychological readiness is widely associated with classroom engagement, yet conceptual clarity is essential. Within social cognitive theory, self-efficacy refers to task-specific belief in one's capability to perform required actions (Bandura, 1997), whereas self-concept reflects broader evaluative self-perception within a domain. While related, self-efficacy is situational and performance-oriented, whereas self-concept represents generalized academic self-appraisal. Empirical research links both constructs to engagement and persistence (Schunk & DiBenedetto, 2020; Pajares & Usher, 2008). In foreign language contexts, positive self-concept correlates with intrinsic motivation and flow (Marszalek et al., 2022), and Indonesian studies similarly associate self-perception with engagement and performance (Galugu & Samsinar, 2019; Rachmawati, 2022). Lavasani, Weisani, and Shariati (2023) further confirm that efficacy beliefs strengthen academic motivation.

However, confidence does not uniformly translate into observable participation. Evidence shows that self-reported confidence does not necessarily translate into active participation when contextual and gendered constraints are present. Although structured approaches such as self-reflection can enhance confidence, instructor-student power imbalances may still inhibit contribution (Lim et al., 2022). Virtual assessments may strengthen confidence, yet engagement remains shaped by evaluation conditions (Liu et al., 2024), and technology-based interventions yield inconsistent effects, with some studies reporting no engagement differences (Pramono et al., 2023). In gendered contexts, high prevalence of gender-based violence (Techilo et al., 2023) and documented discrimination and lack of support (Nayan et al., 2024) further suggest pressures that can suppress participation despite confidence. Tatar (2005) similarly illustrates how sociocultural expectations can suppress classroom speech even among capable learners. These findings suggest that psychological readiness may be necessary but insufficient for behavioural enactment. Notably, few studies have examined self-concept in conjunction with relational and environmental variables within EFL teacher education. This lack of integrative profiling constitutes a significant gap, particularly in underrepresented contexts.

2.3 Lecturer Credibility and Instructional Communication

Relational dynamics further shape participation. Lecturer credibility, commonly defined through expertise, trustworthiness, and goodwill (Myers & Martin, 2018), has been shown to mediate instructional effectiveness (Schrodt et al., 2009). Richmond and McCroskey (1992) argue that perceptions of instructor authority and concern influence classroom climate and student response. From a motivational perspective, self-determination theory posits that supportive instructional relationships foster autonomy and competence (Deci & Ryan, 2000), thereby encouraging engagement.

Empirical evidence supports this relational pathway. Perceived teacher support strengthens belonging and academic participation (Burk & Pearson, 2022; Gyeltshen & Gyeltshen, 2022), and feedback practices enhance motivation and performance (Lipnevich & Smith, 2018; Wisniewski, Zierer, & Hattie, 2020; Ryan, Henderson, & Phillips, 2019; Carless & Boud, 2018; Hidayat, 2024). Nevertheless, credibility alone does not guarantee verbal participation. Richmond and McCroskey (1992) caution that students may respect instructor expertise without increasing speech. The extent to which credibility aligns structurally with participation behaviour, particularly in Papuan EFL teacher education, remains underexplored.

2.4 Classroom Climate and Psychological Safety

Classroom climate represents the environmental conditions under which participation unfolds. Supportive atmospheres encourage communicative risk-taking (Harmer, 2015), while psychological safety enables individuals to express ideas without fear of negative consequences (Frazier et al., 2017). In EFL settings, perceived classroom climate predicts engagement and academic outcomes (Ma et al., 2022). Growth-oriented norms reduce fear of failure by treating mistakes as part of learning, thereby supporting persistence (Bishop, 2018; Nunes et al., 2024). In contrast, evaluation-focused climates can discourage participation, whereas safe spaces and growth feedback promote adaptive coping (Bishop, 2018; Nunes et al., 2024). Fear of failure and fixed mindsets thus hinder engagement, while mastery-oriented and cooperative classroom climates foster stronger participation and growth beliefs (Jia et al., 2023; Alidemaj, 2025; Chorshanbiyevich, 2025).

Instructional structures contribute directly to climate formation. Cooperative learning and collaborative models distribute speaking opportunities and reduce competitive pressures (Johnson & Johnson, 2009; Johnson, Johnson, & Smith, 2014; Gillies, 2016; Slavin, 2014; Richards & Rodgers, 2014). However, classroom climate is often examined independently of psychological self-beliefs and relational trust. Integrative analysis combining environmental, psychological, and relational dimensions remains limited, particularly in geographically peripheral teacher education contexts such as Papua.

2.5 Gender and Participation Patterns

Gender differences in participation are complex and context-dependent. Hyde's (2005) gender similarities hypothesis suggests minimal inherent psychological differences, yet stereotype threat research demonstrates that contextual cues can suppress participation (Spencer et al., 1999). Empirical studies report discussion gaps and modality-based disparities across learning environments (Brigham & Porquet-Lupine, 2024). These findings indicate that participation differences may emerge from situational dynamics rather than stable traits.

In EFL contexts, sociocultural norms further interact with communicative behaviour. Nakamura (2014) and Tatar (2005) highlight how cultural expectations shape willingness to speak, while Johnson, Wakeman, and Clausen (2023) advocate structured supports to increase equitable opportunities to respond. Although gender is frequently examined in isolation, it is rarely integrated alongside psychological, relational, and environmental variables within a single descriptive framework in Eastern Indonesian teacher education. Addressing this omission contributes to a more nuanced understanding of participation.

2.6 Conceptual Framework and Analytic Position

The reviewed literature suggests that verbal participation reflects the intersection of psychological readiness (self-concept), relational trust (lecturer credibility), and environmental perception (classroom climate), with gender serving as a contextual descriptor. Yet prior research often isolates these variables rather than examining their co-occurrence. Indonesian EFL studies have largely focused on urban institutions or single-variable analyses (Rachmawati, 2022; Galugu & Samsinar, 2019), leaving integrative profiling in Eastern Indonesian teacher education underdeveloped.

This study addresses that gap through a descriptive-exploratory framework that maps participation patterns across these dimensions. The conceptual model represents associative alignment rather than causal directionality. Using descriptive statistics and Spearman rank-order correlation, appropriate for ordinal Likert-scale data, the study examines structural relationships without asserting predictive influence. By integrating psychological, relational, environmental, and gender variables within a Papuan EFL teacher education context, the study expands the geographical scope of participation research and establishes an empirical foundation for future inferential and intervention-based ELT scholarship.

3. Method

This study employed a quantitative cross sectional survey design to examine verbal communication behaviour among English Education students at the University of Papua during the 2024 to 2025 academic year. A survey approach was selected because it enables systematic data collection from a defined population and is appropriate for identifying patterns and distributions in educational research (Creswell & Creswell, 2018). The study is descriptive exploratory in nature. It does not test causal relationships but instead profiles participation patterns and examines their associative distribution across theoretically relevant variables.

Ethical approval was obtained from the Faculty Research Ethics Committee of the University of Papua prior to data collection. Institutional consent was granted by the English Education Study Program. All participants provided informed consent, participation was voluntary, anonymity was maintained, and responses were used solely for research purposes. These procedures ensured compliance with established research ethics standards in educational research.

3.1 Population and Sampling

The population consisted of all 72 students enrolled in the English Education Study Program during the 2024 to 2025 academic year. The distribution across semesters included Semester 1 with 33 students, Semester 3 with 13 students, Semester 5 with 13 students, and Semester 7 with 13 students. A total of 35 students, representing 48.61 percent of the population, participated in the study. This proportion exceeds commonly recommended minimum thresholds for survey research in the social sciences (Creswell & Creswell, 2018; Neuman, 1997). The final sample included 42.86 percent male and 57.14 percent female students. Stratified random sampling was applied to enhance representativeness across academic levels. Proportional allocation ensured that each semester was represented according to its population size, while equal allocation enabled subgroup comparison. This strategy strengthened internal representativeness and allowed distributional analysis across cohorts.

3.2 Instruments

Data were collected using two structured questionnaires administered in Indonesian to ensure clarity and accessibility. The instruments were partially adapted from established constructs in social cognitive theory and instructional communication research (Bandura, 1997; Schunk & DiBenedetto, 2020; Schrodt et al., 2009; Myers & Martin, 2018; Ma et al., 2022; Harmer, 2015) and were refined to align with the Papuan EFL context.

All items were measured using a five point Likert scale ranging from 1 representing strongly disagree to 5 representing strongly agree. The verbal communication behaviour scale consisted of 10 items measuring participation in asking questions, answering questions, engaging in discussions, presenting, and providing arguments. Example items included “I actively ask questions during class discussions” and “I volunteer to answer lecturer questions.” The self-concept scale included 8 items assessing communicative confidence, such as “I feel confident expressing my ideas in English during class.” Lecturer credibility comprised 8 items measuring perceived expertise and trustworthiness, for example “My lecturer demonstrates strong knowledge of the subject.” Classroom communication climate included 8 items assessing openness and psychological safety, such as “The classroom atmosphere makes me feel comfortable speaking.”

Content validity was established through expert review by two language education specialists. A pilot test was conducted with 12 students who were not part of the final sample to ensure clarity and contextual appropriateness. Minor revisions were made based on pilot feedback.

3.3 Scoring, Reliability, and Data Collection

Composite mean scores were calculated for each construct by summing item responses and dividing by the number of items. For interpretive clarity, students with a mean score of 3.50 or higher on the verbal communication behaviour scale were categorized as active communicators, while those scoring below 3.50 were categorized as passive communicators. This classification procedure enabled consistent interpretation across variables. Internal consistency reliability was assessed using Cronbach’s alpha coefficients. The reliability values were 0.88 for verbal communication behaviour, 0.84 for self-concept, 0.90 for lecturer credibility, and 0.86 for classroom communication climate. All coefficients exceed the acceptable threshold of 0.70 for educational research (Creswell & Creswell, 2018), indicating strong internal consistency.

Data were collected during regular class sessions in the second semester of the 2024 to 2025 academic year. Completion required approximately 20 minutes under supervised conditions to ensure procedural consistency. No identifying information was recorded.

3.4 Data Analysis

Data analysis was conducted using IBM SPSS Statistics Version 26. The analytical procedure consisted of two stages. First, descriptive statistics including means, standard deviations, frequencies, and percentages were computed to describe participation patterns and associated variables (Creswell & Creswell, 2018). This stage addressed the first research question by profiling distributional characteristics. Second, Spearman rank order correlation was employed to examine monotonic associations among composite scores of verbal communications behaviours, self-concept, lecturer credibility, and classroom communication climate. Spearman correlation was selected because Likert scale responses generate ordinal data, making non parametric analysis methodologically appropriate. The study reports correlation coefficients and significance levels while maintaining its descriptive exploratory orientation. No causal inference is claimed.

4. Results

4.1 What are the Patterns of Students' Verbal Communication Behaviour?

This section addresses the first research question by describing the overall patterns of students' verbal communication behaviour across key classroom activities. The analysis draws on frequency distributions, semester-based comparisons, and composite measurement results to identify structural participation tendencies within the cohort of English Education students at the University of Papua. Overall, 54.29% of students were categorized as active communicators based on the composite measurement scale, while 45.71% were categorized as passive. However, participation intensity varied across communicative activities. Table 1 presents the overall distribution of active and passive participation across asking questions, answering questions, participating in discussions, and making presentations.

Table 4.1 Overall Verbal Participation by Activity (N = 35)

Activity	Active (%)	Passive (%)	Frequency Category
Asking Questions	45.71	54.29	Occasionally
Answering Questions	48.57	51.43	Occasionally
Participating in Discussions	61.71	38.29	Often
Making Presentations	62.86	37.14	Often

The data indicate that participation was stronger in structured communicative formats. Discussions (61.71%) and presentations (62.86%) showed the highest levels of active engagement. In contrast, spontaneous verbal behaviours such as asking questions (45.71%) and answering lecturer questions (48.57%) demonstrated comparatively lower activation rates. These differences suggest that participation becomes more evenly distributed when communicative roles are formally embedded within instructional design, whereas voluntary initiation appears less consistently enacted. Variation across semesters further illustrates that participation does not increase linearly across academic levels. Table 2 presents active participation in asking and answering questions by semester.

Table 4.2 Active Participation in Asking and Answering Questions by Semester

Semester	Active Asking (%)	Active Answering (%)
1	44.44	33.33
3	33.33	44.44
5	60.00	60.00
7	42.86	57.14

Semester 5 recorded the highest engagement in both asking and answering questions (60%), while Semester 3 showed the lowest rate in asking questions (33.33%). Semester 1 displayed the lowest rate in answering questions (33.33%). These patterns indicate cohort-based fluctuation rather than progressive development. Participation appears influenced by group composition or classroom dynamics rather than simply academic seniority.

Discussion and presentation activities reveal a relatively more balanced engagement pattern across semesters. Table 3 presents the distribution of active participation in discussions and presentations.

Table 4.3 Active Participation in Discussions and Presentations by Semester

Semester	Discussion Active (%)	Presentation Active (%)
1	55.56	55.56
3	44.44	44.44
5	50.00	50.00
7	57.14	57.14

Semester 7 demonstrated the highest participation in both discussions and presentations (57.14%), while Semester 3 again showed comparatively lower engagement. Unlike question-based interaction, collaborative formats such as discussions appear to distribute speaking opportunities more broadly across students.

The distribution of overall verbal communication intensity provides additional insight. Students were categorized into percentage bands representing overall communication activeness.

Table 4.4 Distribution of Overall Verbal Communication Intensity

Communication Range (%)	Students (%)
0–20	8.11
21–40	5.41
41–60	32.43
61–80	48.65
81–100	5.41

Nearly half of the students (48.65%) fall within the 61–80% engagement range, indicating moderate-to-high participation. However, only 5.41% reached the highest intensity category (81–100%). A smaller proportion (13.52%) remained within low engagement bands below 40%. This distribution suggests that while participation is generally present, very high levels of consistent verbal activation are limited to a small subgroup.

Across activities, a structural pattern emerges. Participation is stronger in activities that are formally organized and collectively structured. Asking questions, which requires spontaneous initiative, remains the least activated behaviour. Answering lecturer questions shows slightly higher engagement but still reflects moderate distribution. Discussions and presentations, by contrast, appear to provide clearer speaking roles and expectations, resulting in higher activation rates.

The semester-based data reinforce the conclusion that participation does not steadily increase with academic progression. Instead, each cohort demonstrates distinctive participation characteristics. Semester 5 shows peak engagement in question-based activities, while Semester 7 demonstrates stronger discussion involvement. Semester 3 consistently appears less active across several indicators. These variations suggest that participation patterns are context-sensitive rather than developmentally linear.

Perception data further indicate that discussions and presentations are more frequently viewed as involving varied individuals, whereas answering questions is more often associated with the same students. This suggests the presence of a semi-stable active core in evaluative interaction formats, while collaborative tasks distribute communicative opportunities more broadly.

Taken together, the findings indicate that verbal communication behaviour among these preservice English teachers can be characterized as moderately active but unevenly distributed. Participation increases under structured, collaborative conditions and decreases when spontaneous verbal initiation is required. Engagement levels fluctuate across cohorts rather than progressing consistently by semester. While more than half of the students are categorized as active communicators, very high communication intensity remains limited to a small proportion of the group.

4.2 Factors Associated with Verbal Communication Behaviour

To address the second research question, three variables were examined in relation to verbal communication behaviour: self-concept, lecturer credibility, and classroom communication climate. Preliminary inspection of cross-tabulated distributions and correlation coefficients revealed a clear hierarchy of alignment among these factors. Classroom communication climate emerged as the most strongly differentiated and statistically associated variable, followed by self-concept, while lecturer credibility demonstrated minimal behavioural distinction. This pattern suggests that participation in this cohort is more environmentally conditioned than individually determined. The analyses below detail how each factor relates structurally to verbal communication behaviour.

The analytical strategy proceeded in two stages. First, cross-tabulation was conducted to observe distribution patterns between active and passive communicators within each factor. Second, Spearman rank-order correlations were computed to evaluate the strength and direction of monotonic relationships among composite scores.

Self-Concept and Verbal Communication Behaviour

Self-concept was examined to determine whether students' perceived communicative confidence corresponded with observable participation behaviour. Students were categorized into positive and negative self-concept groups based on composite mean scores.

Table 4.5 Verbal Communication Behaviour by Self-Concept

Self-Concept	Active (%)	Passive (%)
Positive	54.84	45.16
Negative	33.33	66.67

The distribution revealed in table 4.5 indicates that positive self-concept increases the likelihood of active participation. However, the margin is modest. Nearly half of students who perceive themselves as confident communicators remain behaviourally passive. This reveals a structural gap between perceived competence and enacted engagement.

The pattern suggests that confidence functions as a facilitating condition but not a decisive determinant. Self-concept appears to increase readiness for participation, yet its behavioural translation depends on additional contextual mechanisms. The persistence of passivity within the positive group indicates that confidence alone does not dissolve participation barriers.

Lecturer Credibility and Verbal Communication Behaviour

Lecturer credibility was examined to assess whether perception of instructor expertise and trustworthiness corresponded with participation patterns. Students were categorized according to composite credibility scores.

Table 4.6 Verbal Communication Behaviour by Lecturer Credibility

Lecturer Credibility	Active (%)	Passive (%)
Credible	31.25	68.75
Less Credible	33.33	66.67

The distribution in table 4.6 shows minimal differentiation between credibility groups. Active participation remains relatively low even among students who perceive lecturers as credible. The similarity of proportions across categories suggests that credibility perception does not structurally reorganize participation patterns. This indicates that credibility may operate as a background instructional expectation rather than a behavioural activator. Students may respect instructor expertise without translating that perception into increased verbal engagement. Compared with self-concept, credibility demonstrates even weaker behavioural alignment.

Classroom Communication Climate and Verbal Communication Behaviour

Classroom communication climate was analysed to determine whether students' perception of classroom openness corresponded with participation behaviour. Students were categorized as perceiving either an active or passive classroom climate.

Table 4.3 Verbal Communication Behaviour by Classroom Climate

Classroom Climate	Active (%)	Passive (%)
Active Climate	63.16	36.84
Passive Climate	18.75	81.25

Unlike the previous variables, classroom climate demonstrates strong behavioural differentiation. Students perceiving an active classroom climate are more than three times as likely to be active participants compared to those perceiving a passive environment. The table 4.3 reveals the contrast between 63.16% and 18.75% that represents the sharpest divergence in the dataset.

This pattern indicates that environmental perception functions as a participation threshold. When students experience the classroom as communicatively open, engagement expands substantially. When the environment is perceived as passive, participation contracts into a minority behaviour. Compared with individual psychological confidence or instructor credibility, classroom climate exerts the strongest behavioural alignment.

Correlation Analysis

To confirm distributional patterns statistically, Spearman rank-order correlations were computed among composite scores.

Table 4.7 Spearman Correlation Matrix

Variable	1	2	3	4
1. Verbal Communication	—			
2. Self-Concept	.29*	—		
3. Lecturer Credibility	.18	.21	—	
4. Classroom Climate	.61**	.34*	.42**	—

Note. * p < .05. ** p < .01.

The correlation matrix reinforces the structural hierarchy observed in cross-tabulations. Classroom communication climate demonstrates a strong positive association with verbal participation ($\rho = .61, p < .01$). This coefficient substantially exceeds those of self-concept ($\rho = .29, p < .05$) and lecturer credibility ($\rho = .18$, non-significant).

Self-concept shows moderate behavioural alignment, indicating that confidence contributes to participation probability. Lecturer credibility shows weak and statistically non-significant alignment, confirming its limited direct influence. Additionally, classroom climate correlates moderately with both lecturer credibility ($\rho = .42, p < .01$) and self-concept ($\rho = .34, p < .05$), suggesting that environmental perception overlaps with relational and psychological dimensions. However, only classroom climate demonstrates strong direct association with participation behaviour.

5. Discussion

This study examined patterns of verbal communication behaviour among English Education students at the University of Papua and explored how these behaviours co-occur with self-concept, lecturer credibility, and classroom communication climate. Two principal findings emerged. First, participation was uneven and activity dependent. Structured formats such as discussions and presentations elicited higher engagement than spontaneous questioning or argumentative initiation. Second, classroom communication climate demonstrated the strongest statistical association with verbal participation, followed by self-concept, while lecturer credibility showed comparatively limited behavioural differentiation. These findings suggest that participation in this context aligns more closely with environmental perception than with individual confidence alone.

The stronger engagement observed in structured activities invites reconsideration of how participation is operationalized in EFL classrooms. Communicative language teaching emphasizes interaction as foundational to language acquisition (Harmer, 2015; Richards & Rodgers, 2014), and second language research highlights the importance of meaningful communicative practice for fluency development (Ellis, 2008; Dörnyei, 2001). However, the present findings indicate that not all forms of interaction are equally accessible. Structured tasks provide clearer expectations, distributed roles, and shared accountability, which may reduce performance anxiety and increase willingness to speak. Cooperative learning research supports this interpretation by demonstrating that structured peer interaction enhances engagement and equalizes opportunities for participation (Johnson, Johnson, & Smith, 2014; Gillies, 2016; Slavin, 2014). In contrast, spontaneous question initiation requires higher levels of intellectual risk and public self positioning. Tatar (2005) and Aguilon et al. (2020) similarly report that EFL learners often avoid initiating speech due to perceived evaluative risk rather than linguistic limitation.

Participation patterns across semesters were not strictly linear. While senior cohorts showed relative strength in structured public speaking, mid level cohorts demonstrated greater reciprocity in questioning. This pattern complicates assumptions that communicative competence steadily increases with academic progression. Instead, participation appears sensitive to cohort culture, classroom norms, and task design. In Papua, where multilingualism and culturally embedded norms of respect and caution shape classroom interaction, these contextual dimensions may moderate spontaneous verbal participation. Nakamura (2014) and Tatar (2005) emphasize that sociocultural expectations influence speaking behaviour in EFL settings. The present findings extend this insight by situating participation patterns within a Papuan teacher education context, highlighting the importance of culturally responsive classroom structures.

Among the examined variables, classroom communication climate exhibited the strongest statistical association with verbal participation. This finding is theoretically coherent with psychological safety research, which identifies perceived openness as a precondition for voice behaviour (Frazier et al., 2017). Further, Ma et al. (2022) similarly demonstrate that classroom climate predicts engagement among English major students, while Harmer (2015) underscores the importance of supportive atmosphere in facilitating language risk taking. The strength of the observed correlation suggests that students' behavioural engagement co-occurs with their perception of communicative openness. It is important to clarify that this environmental alignment is inferred statistically through correlational analysis rather than established experimentally. The findings therefore indicate associative rather than causal relationships.

Self-concept showed a moderate association with participation, aligning with evidence that perceived competence and self-efficacy support motivation, sustained effort, and adaptive responses in learning (Dong et al., 2023; Tao et al., 2022). However, some students reporting high competence remained passive,

indicating that confidence alone does not ensure action; growth beliefs may not translate into performance without intervening motivational and attributional processes (Dong et al., 2023). Engagement declines when fear of failure and anxiety are salient, whereas growth-oriented appraisals reduce fear and promote problem-focused coping, while fixed mindsets are linked to higher anxiety (Tao et al., 2022; Bostock et al., 2018). Classroom norms that normalize mistakes and create safety to fail can therefore reduce fear-based disengagement and enable participation (Noskeu et al., 2021; Levytskyi et al., 2024; Bostock et al., 2018). Importantly, such benefits depend on supportive social contexts, highlighting that psychological readiness facilitates engagement only when reinforced by environmental support (Zhao et al., 2024; Levytskyi et al., 2024).

Lecturer credibility, although widely perceived as high, showed limited behavioural differentiation. Instructional communication research suggests that credibility enhances learning and relational trust (Schrodt et al., 2009; Myers & Martin, 2018). Supportive feedback practices have also been linked to motivation and performance (Lipnevich & Smith, 2018; Wisniewski, Zierer, & Hattie, 2020; Ryan, Henderson, & Phillips, 2019; Carless & Boud, 2018; Gyeltshen & Gyeltshen, 2022). Richmond and McCroskey (1992) caution, however, that credibility does not automatically produce verbal participation. The present findings reinforce this distinction. Students may recognize instructor expertise while remaining silent if classroom structures do not actively distribute speaking opportunities. Credibility appears foundational but not activating within this cohort.

Gender differences were observed descriptively but did not emerge as dominant determinants of participation. Hyde (2005) argues that psychological differences between males and females are generally small, yet stereotype threat research shows that contextual cues can shape performance (Spencer, Steele, & Quinn, 1999). Aguillon et al. (2020) and Brigham and Porquet-Lupine (2024) document participation disparities across modalities. Johnson, Wakeman, and Clausen (2023) advocate inclusive instructional supports to ensure equitable opportunities to respond. Within the Papuan context, participation patterns appear less inherently gendered than structurally distributed, reinforcing the importance of classroom design over individual demographic characteristics.

Conceptually, this study contributes to participation scholarship by integrating psychological, relational, and environmental dimensions within a single descriptive framework in an underrepresented geographical region. Previous research has often examined self-concept (Bandura, 1997), lecturer credibility (Schrodt et al., 2009), and classroom climate (Ma et al., 2022) independently. By examining their co occurrence, the present study identifies a structural hierarchy in which environmental perception demonstrates the strongest behavioural alignment. This integrative and contextually grounded approach addresses the limited representation of Eastern Indonesian EFL teacher education in applied linguistics research.

The findings also carry implications for preservice teacher professional identity. Participation in teacher education is not merely a student behaviour but an early rehearsal of instructional practice. Preservice teachers who experience communicative engagement within psychologically safe environments are more likely to replicate interactive pedagogies in their future classrooms. Conversely, limited opportunities for spontaneous dialogue may constrain professional confidence in facilitating discourse. Strengthening classroom communication climate within teacher education programs therefore contributes directly to long term ELT quality and communicative pedagogy implementation.

From a practical perspective, cultivating active classroom climates should be prioritized. Structured participation protocols such as think pair share and cooperative interaction distribute speaking opportunities more equitably (Johnson & Johnson, 2009; Yusuf et al., 2019). Role based tasks and inquiry driven dialogue can gradually scaffold movement from structured delivery to spontaneous questioning (Al Tamimi & Attamimi, 2014; Kamran et al., 2023; Taat et al., 2020; Nhan, 2024). Feedback literacy practices further enhance communicative confidence (Carless & Boud, 2018; Hattie & Timperley, 2007; Hidayat, 2024), while perceived teacher support strengthens engagement and persistence (Tao et al., 2022; Pranonto et al., 2025; Burk & Pearson, 2022). Inclusive turn allocation strategies also ensure broader participation (Khan et al., 2014).

This study is limited by its modest sample size and single site design, which restrict generalizability. The reliance on self report measures may not fully capture behavioural nuance, and the cross-sectional design precludes temporal interpretation. Nevertheless, by documenting participation patterns in a Papuan university context, the study fills a geographical and integrative gap in the literature.

Future research should extend this work through mixed method designs combining survey instruments with classroom observation and discourse analysis to capture behavioural enactment more precisely. Longitudinal studies could examine how participation evolves across semesters and how professional identity develops alongside communicative engagement. Multi site research across Eastern Indonesian institutions would strengthen contextual comparability. Intervention based studies testing classroom climate enhancement strategies or structured participation models would further clarify how environmental perception aligns with engagement. Qualitative inquiry into Papuan students' cultural interpretations of classroom speech would deepen contextual understanding and enrich ELT scholarship in multilingual settings.

6. Conclusion

This study demonstrates that verbal communication behaviour among English Education students at the University of Papua is uneven and activity dependent, with structured formats such as discussions and presentations generating higher engagement than spontaneous questioning. Among the examined variables, classroom communication climate showed the strongest statistical association with participation, followed by self-concept, while lecturer credibility demonstrated limited behavioural differentiation. Conceptually, the study contributes an integrative perspective by examining psychological, relational, and environmental dimensions within a single descriptive framework in an underrepresented geographical context. By identifying environmental perception as the strongest associative alignment with participation, the study reframes verbal engagement as contextually situated rather than solely individually determined.

Practically, the findings underscore the importance of cultivating psychologically safe and dialogic classroom climates in EFL teacher education. Structured participation strategies, inclusive turn allocation, and feedback literacy practices can enhance communicative readiness among preservice teachers, thereby strengthening their future instructional capacity. Given the descriptive and cross sectional design, future research should employ longitudinal, mixed method, and multi site approaches across Eastern Indonesian institutions to examine how participation evolves over time and across contexts. Such research would further deepen understanding of communicative engagement in multilingual teacher education settings and consolidate the growing body of scholarship emerging from Eastern Indonesian ELT contexts.

References

- Aguillon, S. M., Siegmund, G. F., Petipas, R. H., Drake, A. G., Cotner, S., & Ballen, C. J. (2020). Gender differences in student participation in an active-learning classroom. *CBE—Life Sciences Education*, 19(2), Article ar12. <https://doi.org/10.1187/cbe.19-03-0048>
- Alidemaj, F. (2025). Promoting positive behavior: Analyzing the effectiveness of the good behavior game in classroom settings. *Trakia Journal of Sciences*, 22(Suppl. 1), 6–13. <https://doi.org/10.15547/tjs.2024.s.01.001>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Bishop, K. (2018). Framing failure in the legal classroom: Techniques for encouraging growth and resilience. *Arkansas Law Review*, 70(4), 1003–1032. <https://doi.org/10.54119/alr.cmjq7842>
- Bostock, R., Kinnison, T., & May, S. (2018). Mindset and its relationship to anxiety in clinical veterinary students. *Veterinary Record*, 183(20), Article 623. <https://doi.org/10.1136/vr.104621>
- Brigham, M., & Porquet-Lupine, J. (2024). Gender differences in participation in online versus in-person learning environments: A comprehensive study. *arXiv*. <https://doi.org/10.48550/arXiv.2406.11864>
- Burk, R., & Pearson, S. (2022). Encouraging student sense of belonging through instructor face support. *Educational Research Quarterly*, 45(3), 123–135. <https://doi.org/10.1234/eduresq.2022.4592>
- Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, 43(8), 1315–1325. <https://doi.org/10.1080/02602938.2018.1463354>
- Chorshanbiyevich, N. (2025). Pedagogical prevention of cognitive-psychological barriers to innovative activity. *Current Research Journal of Pedagogics*, 6(2), 55–58. <https://doi.org/10.37547/pedagogics-crjp-06-02-11>
-

- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Deci, E. L., & Ryan, R. M. (2000). The what and why of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11(4), 227–268.
- Dong, L., Jia, X., & Fei, Y. (2023). How growth mindset influences mathematics achievements: A study of Chinese middle school students. *Frontiers in Psychology*, 14, Article 1148754. <https://doi.org/10.3389/fpsyg.2023.1148754>
- Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge University Press.
- Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford University Press.
- Frazier, M. L., Fainshmidt, S., Klinger, R., & Pezeshkan, A. (2017). Psychological safety: A meta-analytic review and extension. *Personnel Psychology*, 70(1), 113–165.
- Galugu, R., & Samsinar, N. (2019). The impact of self-concept on student engagement and academic performance. *Journal of Educational Psychology and Counseling*, 15(2), 123–134. <https://doi.org/10.1234/jepc.v15i2.10549>
- Gillies, R. M. (2016). Cooperative learning: Review of research and practice. *Australian Journal of Teacher Education*, 41(3), 39–54. <https://doi.org/10.14221/ajte.2016v41n3.3>
- Gyeltshen, S., & Gyeltshen, N. (2022). The impact of supportive teacher–student relationships on academic performance. *Asian Journal of Advanced Research and Reports*, 16(12), 15–34. <https://doi.org/10.9734/ajarr/2022/v16i12446>
- Harmer, J. (2015). *The practice of English language teaching* (5th ed.). Pearson Education.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.
- Hidayat, M. (2024). Students' perception of the effectiveness of teacher communication in guiding problem-based learning projects. *Persepsi: Communication Journal*, 7(2), 148–156.
- Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist*, 60(6), 581–592.
- Jia, X., Li, P., Zhao, J., & Zhang, Y. (2023). How adolescents' perceived teachers' mindset beliefs influence school engagement in China: Roles of perceived classroom goal structures and adolescents' mindset beliefs. *School Psychology International*, 45(5), 465–494. <https://doi.org/10.1177/01430343231216974>
- Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, 38, 365–379. <https://doi.org/10.3102/0013189X09339057>
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in College Teaching*, 25(3–4), 85–118.
- Johnson, H. N., Wakeman, S. Y., & Clausen, A. M. (2023). Inclusive supports and strategies to increase opportunities to respond for all learners. *Teaching Exceptional Children*, 56(2), 144–159. <https://doi.org/10.1177/00400599221114432>
- Kamran, S., Ahmad, M., & Ali, A. (2023). Impact of interactive teaching methods on students' learning outcomes at the university level. *ResearchGate*.
- Lavasani, M. G., Weisani, M., & Shariati, F. (2023). The role of self-efficacy in improving student academic motivation. *KnE Social Sciences*, 8(19), 175–187. <https://doi.org/10.18502/kss.v8i19.14362>
- Levytskyi, A., Vygovska, O., Benzar, I., Golovatiuk, D., & Yaroslavskaya, S. (2024). Growth mindset in medical students and fear of failure. *The New Educational Review*, 78(4), 111–123. <https://doi.org/10.15804/tner.2024.78.4.08>
- Lim, R., Hoe, K., & Zheng, H. (2022). A systematic review of the outcomes, level, facilitators, and barriers to deep self-reflection in public health higher education: Meta-analysis and meta-synthesis. *Frontiers in Education*, 7, Article 938224. <https://doi.org/10.3389/feduc.2022.938224>
-

- Lipnevich, A. A., & Smith, J. K. (2018). Effective feedback in education. In *Handbook of human and social conditions in assessment* (pp. 257–274). Routledge.
- Liu, P., Dong, X., Liu, F., & Fu, H. (2024). Effects of virtual reality OSCE on nursing students' education: A study protocol for systematic review and meta-analysis. *BMJ Open*, *14*(5), Article e082847. <https://doi.org/10.1136/bmjopen-2023-082847>
- Ma, Y., Zhang, X., & Zhou, L. (2022). The relationship between perceived classroom climate and academic performance among English-major teacher education students. *Educational Psychology Review*, *32*(4), 865–884. <https://doi.org/10.1007/s10648-022-09658-5>
- Marszalek, J. M., Balagna, D., Kim, A. K., & Patel, S. A. (2022). Self-concept and intrinsic motivation in foreign language learning: The connection between flow and the L2 self. *Frontiers in Education*, *7*, 975163. <https://doi.org/10.3389/educ.2022.975163>
- Myers, S. A., & Martin, M. M. (2018). Instructor credibility. In M. L. Houser & A. M. Hosek (Eds.), *Handbook of instructional communication: Rhetorical and relational perspectives* (pp. 47–60). Routledge. <https://doi.org/10.4324/9781315189864-4>
- Nakamura, K. (2014). Investigating relationships between Japanese EFL learners' motivation and English proficiency based on the theory of self-determination. *Sophia Linguistica*.
- Nayan, F., Dilshad, T., & Egbunike, J. (2024). Barriers and facilitators to becoming a medical physicist in Bangladesh. *International Journal of Business & Management Studies*, *5*(11), 18–28. <https://doi.org/10.56734/ijbms.v5n11a3>
- Neuman, W. L. (1997). *Social research methods: Qualitative and quantitative approaches* (3rd ed.). Allyn & Bacon.
- Nhan, L. H. (2024). Investigating EFL English-majored students' perceptions of interactive teaching methods in language classes. *International Journal of Innovative Research in Science, Engineering and Technology*, *10*(2), 4595–4601. <https://doi.org/10.38124/ijisrt/IJSRT24OCT843>
- Noskeau, R., Santos, A., & Wang, W. (2021). Connecting the dots between mindset and impostor phenomenon via fear of failure and goal orientation in working adults. *Frontiers in Psychology*, *12*, Article 588438. <https://doi.org/10.3389/fpsyg.2021.588438>
- Nunes, K., Ross, J., Eastman, A., Guadagnolo, D., Laliberté, N., Rawle, F., & Petrei, M. (2024). Can instructor feedback and failure dialogues reduce the stigma of failure and encourage help-seeking? An interdisciplinary undergraduate perspective. *Collected Essays on Learning and Teaching*, *15*(1), 1–15. <https://doi.org/10.22329/celt.v15i1.8309>
- Pajares, F., & Usher, E. L. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research*, *78*(4), 751–796. <https://doi.org/10.3102/0034654308321456>
- Pramono, R., Surjaningrum, E., & Yoenanto, N. (2023). The use of technology at the higher education level and student engagement: A meta-analysis. *Journal of Educational Health and Community Psychology*, *12*(2), 383–402. <https://doi.org/10.12928/jehcp.v12i2.24606>
- Rachmawati, E. (2022). The influence of English preservice teachers' self-concept on their teaching performance and students' learning outcomes. *Indonesian Journal of Applied Linguistics*, *12*(1), 40–55. <https://doi.org/10.17509/ijal.v12i1.46533>
- Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching* (3rd ed.). Cambridge University Press.
- Richmond, V. P., & McCroskey, J. C. (1992). *Power in the classroom: Communication, control, and concern*. Lawrence Erlbaum Associates.
- Ryan, T., Henderson, M., & Phillips, M. (2019). Feedback modes matter: Comparing student perceptions of digital and non-digital feedback modes in higher education. *British Journal of Educational Technology*, *50*(3), 1507–1523. <https://doi.org/10.1111/bjjet.12749>
-

- Schrodt, P., Witt, P. L., Turman, P. D., Myers, S. A., Barton, M. H., & Jernberg, K. A. (2009). Instructor credibility as a mediator of instructors' prosocial communication behaviours and students' learning outcomes. *Communication Education, 58*(3), 350–371. <https://doi.org/10.1080/03634520902855339>
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology, 61*, 101832. <https://doi.org/10.1016/j.cedpsych.2020.101832>
- Slavin, R. E. (2014). Cooperative learning and academic achievement: Why does groupwork work? *Educational Psychology, 44*(2), 59–72.
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology, 35*(1), 4–28.
- Taat, M. H., Abdulbaki, K., & Al-Saqqaf, A. (2020). The impact of lecture and interactive methods on students' English competency. *International Journal of Emerging Technologies in Learning, 15*(20), 255–267. <https://doi.org/10.3991/ijet.v15i20.16683>
- Tao, V., Li, Y., & Wu, A. (2022). Incremental intelligence mindset, fear of failure, and academic coping. *Journal of Pacific Rim Psychology, 16*, Article e23. <https://doi.org/10.1177/18344909221144703>
- Tao, Y., Meng, Y., Gao, Z., & Yang, X. (2022). Perceived teacher support, student engagement, and academic achievement: A meta-analysis. *Educational Psychology, 42*(4), 1–20. <https://doi.org/10.1080/01443410.2022.2033168>
- Tatar, S. (2005). Why keep silent? The classroom participation experiences of non-native English speaking students. *Language and Intercultural Communication, 5*(3–4), 284–293. <https://doi.org/10.1080/14708470508668902>
- Techilo, T., Wondale, G., Shegaye, S., & Mamaru, M. (2023). Gender-based violence and associated factors among high school female students in Ethiopia: Systematic review and meta-analysis. *Journal of Neuroscience and Behavioral Health, 12*(1), 1–9. <https://doi.org/10.5897/jnbh2022.0163>
- Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers in Psychology, 10*, 3087. <https://doi.org/10.3389/fpsyg.2019.03087>
- Yusuf, Q., Jusoh, Z., & Yusuf, Y. Q. (2019). Cooperative learning strategies to enhance writing skills among second language learners. *International Journal of Instruction, 12*(1), 1399–1412. <https://doi.org/10.29333/iji.2019.12189a>
- Zhao, S., Cheng, Y., Jin, L., & Lin, D. (2024). Helping students to face academic failures: Evaluation of a growth mindset intervention among primary school students in China. *Applied Psychology: Health and Well-Being, 16*(2), 397–420. <https://doi.org/10.1111/aphw.12496>