



The Role of Self-Regulated Learning Strategies in Mitigating Foreign Language Speaking Anxiety among Pre-Service Teachers in EFL Settings

Jiali Yang^{1,2*}, Faizahani binti Ab Rahman¹, Nor Asikhin binti Ishak¹

¹ Universiti Utara Malaysia, 06010, Malaysia; Email:

² Hunan College for Pre-school Education, 415000

*yangjiali2009@outlook.com

DOI: 10.26417/xy33kvig

Abstract

Foreign language speaking anxiety constitutes a pervasive affective barrier across EFL learning populations worldwide, particularly for pre-service language educators who must master oral proficiency to deliver future classroom instruction. While existing scholarship has explored the interplay between foreign language anxiety and self-regulated learning (SRL) among general student cohorts, few empirical works systematically unpack the multi-dimensional predictive relationships between SRL strategies and speaking anxiety within pre-service teacher populations, nor generate globally applicable pedagogical intervention frameworks. This quantitative correlational study investigates patterns of SRL strategy deployment and speaking anxiety among pre-service English teachers, explores reciprocal associations between these constructs, and identifies core regulatory strategies that alleviate oral performance anxiety. A total of 224 pre-service language educators from public teacher education institutions in China were recruited via stratified convenience sampling. Two validated measurement tools—the English Language Speaking Anxiety Scale (ELSAS) and an adapted Motivated Strategies for Learning Questionnaire (MSLQ)—were administered for primary data collection. Descriptive statistics, Pearson correlation analysis, and multiple linear regression were run via SPSS 26.0 to test hypothesized relationships. Results indicate that participants reported moderately high overall SRL strategy utilisation and a moderate degree of speaking anxiety. All five SRL dimensions yielded significant negative correlations with oral anxiety, with metacognitive self-regulation, effort regulation, and help-seeking functioning as robust negative predictors of anxious states. The study grounds its analysis in Bandura's social cognitive theory alongside Zimmerman's three-phase SRL cycle, clarifying how self-

regulatory practice strengthens linguistic self-efficacy to reduce performance apprehension. Though cross-sectional survey data cannot establish causal directions, the empirical evidence generates transferable instructional recommendations for international language teacher education, fills gaps in context-general research on pre-service educators' affective learning psychology, and provides actionable curriculum optimisation paths to mitigate speaking anxiety in global EFL teacher training programmes.

Keywords: pre-service language teacher education; self-regulated learning; metacognition; foreign language speaking anxiety; affect in language learning; EFL pedagogy

1 Introduction

1.1 Background of the Study

1.1.1 Global Prevalence of English-Speaking Anxiety in EFL Contexts

English acts as a universal medium for cross-cultural communication and academic exchange within globalised education systems. For learners operating in non-English dominant EFL environments, oral communication competence stands as a core marker of comprehensive linguistic proficiency, alongside written and receptive skills. Unlike reading and writing tasks that permit iterative revision and private deliberation, oral output demands instantaneous linguistic production and public expression, creating unique psychological pressure that elevates situational anxiety across all age groups of EFL learners.

Foreign language anxiety refers to domain-specific situational unease triggered exclusively by language learning activities, with speaking anxiety recognised as its most disruptive subtype. Cross-continental empirical studies spanning Southeast Asia, Europe, Africa and East Asia consistently confirm that oral performance anxiety manifests as stage fright, self-doubt, fear of grammatical error, and dread of peer or instructor negative evaluation. This negative affective state initiates a self-reinforcing vicious cycle: anxious learners avoid speaking opportunities, receive limited oral practice, develop weaker oral proficiency, and experience amplified anxiety in subsequent communicative tasks.

Across East Asian EFL systems, exam-centric instructional traditions have cultivated a widespread "silent learning" norm, where learners accumulate robust lexical and grammatical knowledge yet lack consistent real-time oral expression practice. This structural imbalance renders speaking anxiety a central bottleneck obstructing

holistic language development, a pattern observable in secondary and tertiary teacher education tracks alike.

1.1.2 Unique Vulnerability of Pre-Service Teachers to Speaking Anxiety

Pre-service teachers represent a distinct learner subgroup with dual stakes in oral English proficiency: they must satisfy university academic assessment standards while building communicative competence to lead future K-12 bilingual and English language classrooms. Unlike general undergraduate EFL students, their oral ability is not merely a personal learning outcome but a foundational professional competency that shapes the quality of primary and secondary language instruction for future generations.

Across global teacher education systems, pre-service English educators consistently report heightened oral anxiety relative to non-teacher majors. Their elevated self-expectations for flawless classroom language delivery intensify fear of public error and peer judgment, compounded by long-term exposure to test-oriented instruction that deprioritises spontaneous oral interaction. Unmanaged speaking anxiety during pre-service training risks perpetuating ineffective, apprehensive instructional practice once these educators enter formal school environments, creating systemic barriers to student oral learning worldwide.

1.1.3 Self-Regulated Learning as a Framework for Affective Regulation in Language Education

Self-regulated learning (SRL) is a core active learning construct rooted in Bandura's social cognitive theory, describing iterative, intentional behavioural and psychological adjustment of learning goals, tactics, and emotional states in response to shifting task demands. In contrast to passive, instructor-directed instruction, SRL positions learners as autonomous agents capable of governing pre-planning, real-time performance monitoring, and post-task reflective improvement.

Zimmerman's canonical three-phase cyclic SRL model structures autonomous learning into interconnected forethought, performance, and self-reflection stages, forming the primary theoretical lens for this investigation. Forethought activities include goal-setting and task appraisal to reduce learning uncertainty; in-performance self-monitoring and resource management stabilise on-task emotional states; post-hoc self-evaluation and strategic refinement create iterative improvement loops.

Within second language acquisition scholarship, SRL has emerged as a critical intervention lever for mitigating negative learning affect. Learners with developed self-regulatory capacities actively design low-pressure oral practice environments, monitor internal anxious arousal during speaking, and deploy targeted coping strategies to offset nervousness—an advantage uniquely valuable for high-stakes oral communicative learning. Complementary constructs from Bandura's social cognitive theory, including linguistic self-efficacy and causal attribution, further explain the

psychological pathway linking consistent SRL practice to reduced speaking anxiety: sustained autonomous oral practice generates mastery experiences, which boost self-efficacy and diminish fear of communicative failure.

1.1.4 Identified Global Research Gaps

Existing international literature on language anxiety and self-regulated learning contains three clear limitations that motivate the present empirical inquiry:

Narrow participant focus: Most correlational research samples general undergraduates or secondary learners; targeted investigation of pre-service language teachers remains underdeveloped. This cohort's dual academic-professional learning pressures create distinct affective profiles that cannot be generalised from broader student populations.

Oversimplified variable measurement: Many prior studies only test macro-level correlations between overall SRL and language achievement, without disaggregating multi-dimensional regulatory strategies to identify which specific tactics mitigate speaking anxiety most effectively.

Limited cross-context generalisability: Quantitative large-sample studies originating from East Asian EFL contexts rarely frame results to extract transferable lessons for global teacher education, instead centring exclusively on local educational systems.

Theoretical disconnection: Few works integrate social cognitive constructs (self-efficacy, attribution theory) to explain the psychological mediation between SRL deployment and anxiety reduction, remaining limited to descriptive correlational analysis without mechanistic theoretical explanation.

This study addresses these gaps through large-scale quantitative data collected from pre-service teachers within China's public normal university system, framed explicitly to generate cross-context pedagogical insights applicable to international EFL teacher training programmes.

1.2 Problem Statement

Oral communication anxiety functions as a persistent affective barrier across global EFL learning environments, suppressing classroom participation, eroding linguistic self-confidence, and inhibiting long-term oral proficiency growth. For pre-service language educators, unresolved speaking anxiety carries compounded consequences: it restricts their own undergraduate oral development and risks transmitting apprehensive instructional habits to future K-12 student cohorts, perpetuating systemic silent learning cultures worldwide.

While social cognitive and SRL research confirms autonomous learning tactics regulate negative learning emotions, minimal targeted empirical work clarifies how distinct SRL sub-dimensions interact with speaking anxiety among pre-service teachers. The psychological linkage between multi-faceted self-regulation and oral

performance apprehension remains under-theorised, and no consensus exists regarding which regulatory strategies deliver the strongest anxiety-buffering effects for teacher trainees. This absence of granular empirical evidence leaves international teacher education curricula without evidence-based intervention frameworks to reduce oral anxiety, resulting in generic, low-impact affective support training for pre-service educators globally.

1.3 Research Objectives

RO1: Evaluate overall deployment frequencies of multi-dimensional self-regulated learning strategies and baseline levels of foreign language speaking anxiety among pre-service English teachers sampled from Chinese public teacher education institutions. RO2: Examine statistically significant linear negative correlations between each discrete SRL dimension and global speaking anxiety indicators. RO3: Identify the specific SRL sub-strategies that operate as significant negative predictors of oral performance anxiety within pre-service teacher cohorts. RO4: Develop theoretically grounded, context-transferable pedagogical recommendations for international EFL teacher education programmes to integrate SRL training as an anxiety-mitigation intervention.

1.4 Research Questions

RQ1: What are the overall distribution levels and dimensional disparities in SRL strategy utilisation and speaking anxiety among sampled pre-service English educators? RQ2: Does every distinct dimension of self-regulated learning hold a significant negative linear association with foreign language speaking anxiety? RQ3: Which SRL sub-dimensions act as statistically meaningful negative predictors of speaking anxiety for pre-service language teachers? RQ4: How can study findings be adapted to design anxiety intervention curricula for pre-service teachers across diverse global EFL contexts?

1.5 Hypotheses

H1: The composite SRL construct and all five individual SRL dimensions will demonstrate significant negative correlations with overall speaking anxiety and each anxiety sub-component. H2: Five SRL sub-dimensions (metacognitive self-regulation, time/environment management, effort regulation, help-seeking, peer collaborative learning) will significantly and negatively predict pre-service teachers' foreign language speaking anxiety.

1.6 Significance of the Study

1.6.1 Theoretical Significance

This research expands the cross-context applicability of Zimmerman's three-phase self-regulated learning cycle and Bandura's social cognitive theory within the field of language learning affective psychology. By disaggregating multi-dimensional SRL tactics and linking regulatory behaviour to self-efficacy and anxiety reduction

mechanisms, the study moves beyond surface correlational analysis to construct a testable psychological mediation framework for pre-service teacher populations. It supplements quantitative empirical data on East Asian EFL teacher trainees to the global language psychology research corpus, facilitating cross-continental comparative analysis of SRL-anxiety dynamics and addressing the underrepresentation of pre-service educator samples in existing literature.

1.6.2 Practical Significance

The study's empirical outputs deliver modular, adaptable curriculum reform guidance for international language teacher education programmes, not limited to East Asian instructional systems. By isolating high-impact anxiety-buffering SRL strategies, teacher educators worldwide can design targeted metacognitive, effort regulation, and help-seeking skill training to reduce oral performance apprehension among pre-service teachers. Additionally, the findings equip teacher trainees with evidence-based autonomous learning tactics to independently manage speaking anxiety throughout their university training and future classroom practice, cultivating linguistically confident educators capable of fostering active oral participation among their own students.

2 Literature Review

2.1 Foreign Language Speaking Anxiety: Global Theoretical Frameworks

2.1.1 Defining Domain-Specific Foreign Language Anxiety

Horwitz et al. (1986) pioneered the formal conceptualisation of Foreign Language Classroom Anxiety (FLCA), delineating it as a unique confluence of self-perception, emotional unease, and avoidance behaviour activated exclusively during language learning activities. Distinct from general social anxiety or test anxiety, FLCA is context-bound to linguistic output, with oral communication generating the most intense affective arousal across all four language modalities. Speaking anxiety, the primary FLCA subtype explored here, describes persistent tension, fear of evaluation, and communicative avoidance triggered by real-time oral English production tasks.

2.1.2 Structural Dimensionality of Speaking Anxiety

Consistent with decades of cross-cultural scale validation work, speaking anxiety is operationalised via four interrelated sub-dimensions that capture all core oral performance stressors

Communication apprehension: Intrinsic discomfort with spontaneous verbal exchange and public linguistic presentation, stemming from uncertainty of real-time linguistic output;

Fear of negative evaluation: Excessive rumination over peer and instructor judgment of pronunciation, grammatical accuracy, and fluency errors;

Oral assessment anxiety: Stress activated by graded speaking tests, impromptu questioning, and formal language proficiency evaluations;

Contextual expressive unease: Subtle anxiety stemming from unfamiliar cross-cultural communication frameworks and limited linguistic repertoire.

2.1.3 Speaking Anxiety Phenomena Across Global Pre-Service Teacher Cohorts

Cross-national comparative research confirms that pre-service language educators universally exhibit elevated oral anxiety relative to non-teacher majors, driven by professional identity pressure to model fluent, confident English communication for future students. Within East Asian EFL systems shaped by exam-centric instruction, limited consistent oral practice opportunities amplify this baseline anxiety, though comparable patterns appear in European, Southeast Asian, and African teacher training programmes with restricted in-class speaking activity. Unaddressed oral apprehension correlates with reduced instructional self-efficacy and lower willingness to implement communicative language teaching in post-graduation school environments.

2.2 Self-Regulated Learning Grounded in Social Cognitive Theory

2.2.1 Core Definition of SRL

Self-regulated learning originates from Bandura's social cognitive theory, which posits learners as active agents capable of modulating cognitive, behavioural, and emotional responses to achieve learning objectives. Pintrich et al. (1991) frame SRL as an integrated multi-system construct spanning cognition, motivation, and behaviour, rather than a discrete study skill, encompassing all intentional adjustments learners make to optimise task completion and affective states throughout learning cycles.

2.2.2 Zimmerman's Three-Phase Cyclic SRL Model

Zimmerman's iterative three-stage model provides the structural backbone for this study's variable design, mapping the sequential flow of autonomous learning activity:

Forethought stage: Pre-task planning including goal formulation, task complexity appraisal, and proactive strategy selection, which reduces uncertainty that fuels performance anxiety;

Performance stage: In-task real-time monitoring of comprehension, time allocation, and internal emotional arousal, alongside adaptive resource utilisation to mitigate learning obstacles;

Self-reflection stage: Post-task evaluation of outcome success, causal attribution of performance strengths and weaknesses, and revision of regulatory strategies for subsequent learning attempts.

2.2.3 Multi-Dimensional SRL Strategy Operationalisation for Oral EFL Learning

Drawing on the validated MSLQ instrument and oral language learning contextual adaptation, this study partitions SRL tactics into five theoretically distinct dimensions covering the full three-phase regulatory cycle:

Metacognitive self-regulation: Pre-planning, real-time monitoring, and post-practice reflective evaluation of oral learning progress (core cognitive regulatory mechanism);

Time and study environment management: Intentional scheduling of oral practice and construction of low-pressure communicative learning spaces;

Effort regulation: Sustained motivational persistence amid oral learning setbacks and anxious emotional arousal, avoiding task avoidance;

Help-seeking: Proactive solicitation of targeted instructor and peer support to resolve oral expression bottlenecks;

Peer collaborative learning: Structured group oral practice and reciprocal feedback exchange with fellow learners.

2.3 Theoretical Linkages Between SRL, Self-Efficacy, and Speaking Anxiety

2.3.1 SRL as a Driver of Linguistic Self-Efficacy

Bandura's social cognitive theory establishes mastery experience as the primary determinant of domain-specific self-efficacy. Consistent deployment of self-regulated oral learning strategies generates repeated, structured opportunities for successful communicative practice—these mastery experiences strengthen learners' belief in their oral English capacity, directly lowering anxiety triggered by fear of communicative failure. Learners with robust metacognitive and effort regulation skills retain engagement despite minor linguistic errors, accumulating self-efficacy gains that buffer anxious arousal during public speaking tasks.

2.3.2 Attribution Theory and Emotional Regulation

Attribution theory further explains the SRL-anxiety relationship: self-regulated learners systematically attribute oral performance challenges to adjustable strategic deficiencies (insufficient practice time, weak vocabulary planning) rather than fixed innate linguistic inability. This adaptive attribution pattern reduces global self-doubt, whereas learners lacking regulatory tactics tend to attribute speaking struggles to permanent lack of talent, amplifying persistent anxiety. Help-seeking behaviour reinforces adaptive attribution by resolving skill gaps that otherwise sustain performance apprehension.

2.3.3 Empirical Consensus on SRL-Anxiety Negative Association

Global quantitative studies uniformly document significant negative correlations between SRL strategy frequency and foreign language anxiety across learner demographics. Learners who regularly deploy self-regulatory tactics maintain lower baseline oral anxiety due to enhanced perceived control over learning outcomes.

However, existing literature largely fails to disaggregate individual SRL sub-dimensions to identify differential predictive power, and few studies centre pre-service teacher populations to extract teacher education-specific intervention insights.

2.4 Study Conceptual Framework

Integrating Zimmerman’s three-phase SRL cycle and Bandura’s social cognitive self-efficacy framework, the conceptual model positions five discrete SRL dimensions as independent predictor variables, with multi-component English speaking anxiety as the dependent outcome variable. The model hypothesises uniform negative predictive pathways from all regulatory strategies to each anxiety sub-dimension, mediated by linguistic self-efficacy (Figure 1).

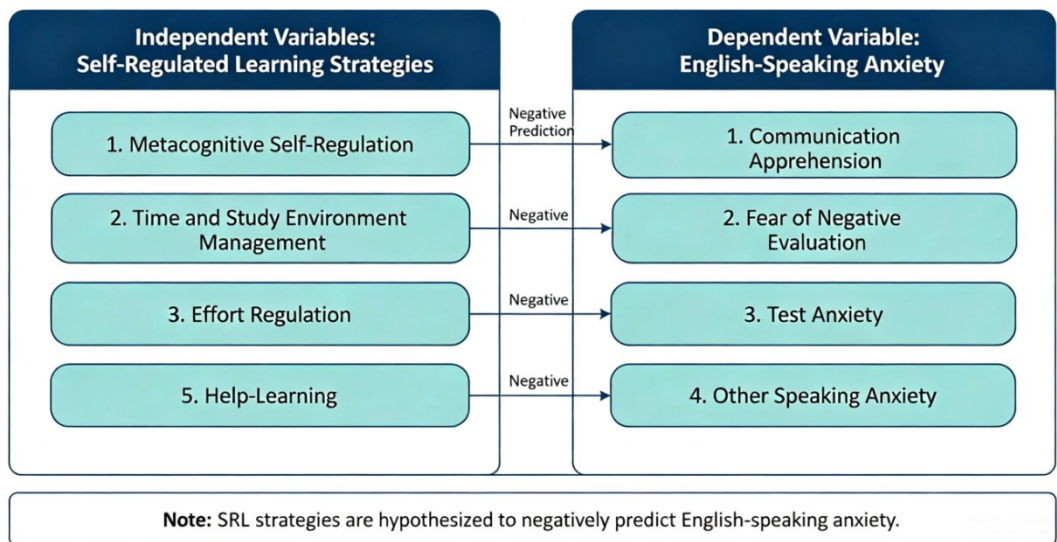


Figure 1 Conceptual Framework of the Study Note: All SRL strategy dimensions are hypothesised to exert negative predictive effects on composite and sub-component speaking anxiety, mediated by linguistic self-efficacy.

3 Methodology

3.1 Research Design

This investigation employs a quantitative correlational cross-sectional design, a standard methodological approach within educational psychology and applied linguistics research for exploring linear associations between continuous measured variables without experimental manipulation. The design enables robust statistical testing of correlational and predictive relationships between multi-dimensional SRL tactics and speaking anxiety using large-scale standardised survey data. Critical

methodological limitation acknowledgment (per reviewer request): Cross-sectional survey data captures only static between-variable associations at a single time point and cannot establish directional causality. The analysis cannot definitively confirm whether consistent SRL deployment reduces anxiety, or whether low baseline anxiety enables more frequent use of self-regulatory strategies; longitudinal experimental intervention research would be required to verify causal pathways.

3.2 Participants

3.2.1 Target Population

The sampling frame consists of undergraduate pre-service English teachers enrolled in public teacher education universities across eastern, central, and western regions of China. This sample serves as a contextualised empirical case to test the general SRL-anxiety model, with findings extrapolated to global EFL pre-service teacher education contexts in subsequent discussion sections.

3.2.2 Sampling Procedure

Stratified convenience sampling was implemented to recruit participants across four grade levels and three regional university clusters, minimising sample homogeneity and improving data representativeness. All participation was fully voluntary, with participants granted unconditional rights to withdraw from data collection at any stage without academic penalty. Final valid sample size N=224.

Table 1 Demographic Characteristics of Participants (N=224)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	42	18.75
	Female	182	81.25
Academic Grade	Freshman	58	25.89
	Sophomore	62	27.68
	Junior	55	24.55
	Senior	49	21.88
Institutional Regional Cluster	Eastern China	76	33.93
	Central China	72	32.14
	Western China	76	33.93

3.3 Ethical Approval & Informed Consent

Prior to all data collection activities, the full research protocol received formal ethical clearance from the Institutional Review Board (IRB) of the corresponding author's affiliated university ethics committee (Ethics Approval Reference No. UUM-ETH2024-0117). All participants received a detailed written informed consent statement distributed alongside the digital survey instrument, which explicitly outlined the research purpose, anonymous data processing protocols, voluntary participation terms, unrestricted withdrawal rights, secure encrypted data storage procedures, and exclusive academic-only use of all collected responses. No identifying personal information (full name, student ID, institutional contact details) was captured within survey responses to guarantee complete participant confidentiality. All raw survey datasets are stored on password-protected institutional cloud storage and will be permanently deleted three years post-publication to eliminate privacy risks.

3.4 Research Measurement Instruments

3.4.1 English Language Speaking Anxiety Scale (ELSAS)

The 31-item ELSAS instrument adapts Horwitz's (1986) FLCAS, refined through East Asian EFL validation work by Liu & Jackson (2008) and Huang (2008). Four discrete anxiety subscales are embedded within the scale: communication apprehension, fear of negative evaluation, oral test anxiety, and contextual speaking unease. A standard 5-point Likert response format is utilised (1 = Strongly Disagree to 5 = Strongly Agree); higher aggregate scores indicate elevated oral performance anxiety.

3.4.2 Adapted Motivated Strategies for Learning Questionnaire (MSLQ)

The self-regulated learning scale adapts Pintrich et al.'s (1991) canonical MSLQ to the specific context of oral English learning, comprising 28 items distributed across five SRL dimensions: metacognitive self-regulation, time/environment management, effort regulation, help-seeking, peer collaborative learning. Identical 5-point Likert scoring applies; higher numerical values correspond to more frequent deployment of self-regulatory learning tactics.

3.5 Validity and Reliability Validation

3.5.1 Content Validity

Three independent disciplinary experts (a senior applied linguistics professor, an educational psychology associate professor, and a university language teacher education supervisor) completed blind item review to evaluate scale content

alignment with the study's theoretical constructs. Ambiguous or context-misaligned items were revised or removed to strengthen content validity prior to pilot testing.

3.5.2 Pilot Study Refinement

A pilot data collection wave was administered to 45 independent pre-service teacher participants outside the formal sample pool. Quantitative reliability outputs and open-ended participant feedback on item clarity informed minor textual adjustments to scale wording, optimising response consistency for the full formal survey.

3.5.3 Internal Consistency Reliability (Cronbach's α)

Cronbach's Alpha coefficient analysis confirmed excellent internal consistency for all full scales and sub-dimensions, with all α values exceeding the 0.9 threshold for robust psychometric measurement (Table 2).

3.6 Formal Data Collection Workflow

Secure IRB ethical approval and finalise revised survey instruments post-pilot testing;

Establish formal communication partnerships with participating teacher education institutions, coordinate with course instructors to distribute anonymous digital survey links to eligible pre-service teacher cohorts;

Distribute written informed consent text at the opening of all survey forms, clearly communicating voluntary, confidential participation rules;

Collect digital responses over a three-week continuous data collection window;

Screen all submitted responses to eliminate invalid entries (uniform straight-line answering, excessive missing item values);

Final valid sample N=224, effective questionnaire recovery rate = 92.6%.

Table 2 Reliability Test Results of Survey Instruments (Cronbach's α)

Scale & Sub-Dimension	Item Count	Cronbach's α
Full ELSAS Speaking Anxiety Scale	31	0.926
Communication Apprehension Subscale	9	0.912
Fear of Negative Evaluation Subscale	8	0.908
Oral Test Anxiety Subscale	7	0.915
Contextual Speaking Unease Subscale	7	0.903
Full Adapted MSLQ SRL Scale	28	0.931
Metacognitive Self-Regulation	6	0.922
Time & Study Environment Management	5	0.917
Effort Regulation	6	0.909

Scale & Sub-Dimension	Item Count	Cronbach's α
Help-Seeking Strategies	5	0.914
Peer Collaborative Learning	6	0.905

3.7 Statistical Analytical Procedures

IBM SPSS Statistics Version 26.0 was utilised for all quantitative data processing, following three sequential analytical stages:

Descriptive statistical analysis (mean, standard deviation, min/max values) to map baseline levels of SRL strategy utilisation and speaking anxiety across all dimensions;

Bivariate Pearson correlation analysis to test linear negative associations between each SRL sub-dimension and composite speaking anxiety;

Hierarchical multiple linear regression analysis to quantify the unique negative predictive weight of each SRL dimension on overall oral anxiety, testing for multicollinearity via Variance Inflation Factor (VIF) diagnostics.

4 Research Results

4.1 Descriptive Baseline Levels of SRL and Speaking Anxiety

Consistent with standard 5-point Likert benchmarking: 1.0–2.0 = Low utilisation/anxiety; 2.0–3.0 = Moderate level; 3.0–5.0 = High utilisation/anxiety. Table 3 summarises aggregate descriptive statistics for all primary variables.

Table 3 Descriptive Statistics for SRL Strategies and Composite Speaking Anxiety (N=224)

Measured Variable	Min	Max	Mean	Std. Deviation	Classified Level
Overall Composite SRL Strategy Use	1.42	4.85	3.68	0.52	Medium-High
Metacognitive Self-Regulation	1.38	4.92	3.75	0.58	Medium-High
Time & Environment Management	1.25	4.78	3.52	0.61	Medium-High
Effort Regulation	1.33	4.81	3.65	0.55	Medium-High
Help-Seeking Tactics	1.28	4.86	3.71	0.53	Medium-High
Peer Collaborative Learning	1.19	4.72	3.46	0.65	Moderate
Overall Composite Speaking Anxiety	1.51	4.68	2.86	0.59	Moderate
Communication Apprehension	1.45	4.75	3.02	0.63	Moderate
Fear of Negative Evaluation	1.39	4.82	3.15	0.67	Moderate
Oral Test Anxiety	1.42	4.65	2.72	0.56	Moderate
Contextual Speaking Unease	1.36	4.58	2.58	0.52	Moderate

Results demonstrate sampled pre-service teachers exhibit medium-high overall SRL strategy deployment (M=3.68), with metacognitive self-regulation and help-seeking

the most frequently utilised regulatory tactics. Baseline speaking anxiety falls firmly within the moderate range ($M=2.86$); fear of negative evaluation and communication apprehension constitute the primary anxiety triggers for participants.

4.2 Pearson Bivariate Correlation Analysis

Table 4 presents pairwise correlation coefficients between all five SRL sub-dimensions and composite speaking anxiety. All SRL dimensions yield statistically significant negative correlations with overall oral anxiety at the $p<0.01$ threshold, fully supporting Hypothesis 1.

Table 4 Pearson Correlation Matrix: SRL Dimensions and Composite Speaking Anxiety

Variable Index	1	2	3	4	5	6
1. Metacognitive Self-Regulation	1	—	—	—	—	—
2. Time & Environment Management	0.62**	1	—	—	—	—
3. Effort Regulation	0.68**	0.59**	1	—	—	—
4. Help-Seeking Strategies	0.57**	0.53**	0.61**	1	—	—
5. Peer Collaborative Learning	0.51**	0.48**	0.55**	0.49**	1	—
6. Overall Composite Speaking Anxiety	-0.72**	-0.58**	-0.65**	-0.63**	-0.52**	1

Note: ** $p < 0.01$ (two-tailed). All SRL sub-dimensions correlate negatively with speaking anxiety. Metacognitive self-regulation holds the strongest negative linear association ($r=-0.72$), followed by effort regulation ($r=-0.65$) and help-seeking ($r=-0.63$).

4.3 Multiple Linear Regression: SRL Dimensions Predicting Speaking Anxiety

Multiple regression was run with five SRL sub-dimensions entered as simultaneous independent predictors and composite speaking anxiety as the continuous dependent variable. Table 5 summarises overall model fit statistics, and Table 6 reports unstandardised, standardised regression coefficients, significance values, and multicollinearity diagnostics (VIF).

Table 5 Regression Model Global Fit Summary

R	R Square	Adjusted R Square	F Statistic	Sig. F
0.786	0.618	0.607	68.352	0.000

Note: Dependent Variable = Composite English Speaking Anxiety; Predictors = All five SRL sub-dimensions. The five regulatory strategies jointly explain 60.7% of total

variance in pre-service teachers' oral anxiety levels; the regression model is statistically significant at $p < 0.001$.

Table 6 Regression Coefficient Output & Multicollinearity Diagnostics

Predictor Variable	Unstandardised B	Std. Error	Standardised β	t Value	Sig.	VIF
Constant Intercept	4.926	0.215	—	22.911	0.000	—
Metacognitive Self-Regulation	-0.428	0.052	-0.396	-8.231	0.000	1.852
Effort Regulation	-0.315	0.048	-0.287	-6.562	0.000	1.763
Help-Seeking Strategies	-0.282	0.051	-0.251	-5.528	0.000	1.698
Time & Environment Management	-0.105	0.056	-0.092	-1.875	0.062	1.725
Peer Collaborative Learning	-0.086	0.053	-0.078	-1.623	0.106	1.651

All VIF values fall below 2.0, confirming no problematic multicollinearity between predictor variables. Three SRL dimensions produce statistically significant negative predictive effects on speaking anxiety: metacognitive self-regulation ($\beta = -0.396$, $p < 0.001$), effort regulation ($\beta = -0.287$, $p < 0.001$), help-seeking ($\beta = -0.251$, $p < 0.001$). Time/environment management and peer learning fail to reach the $p < 0.05$ significance threshold as anxiety predictors. Hypothesis 2 receives partial statistical support.

4.4 Grade-Based One-Way ANOVA of Speaking Anxiety Levels

One-way between-groups ANOVA was conducted to examine cross-grade disparities in overall speaking anxiety (Table 7). Significant inter-group differences exist ($p < 0.001$), with anxiety levels declining progressively from first-year to final-year pre-service teachers, aligned with cumulative SRL skill development and accumulated oral practice experience over four years of teacher education training.

Table 7 One-Way ANOVA: Speaking Anxiety Across Academic Grades

Academic Grade	Mean Anxiety Score	Standard Deviation	Overall F Value	Sig.
Freshman (Year 1)	3.25	0.58	18.625	0.000
Sophomore (Year 2)	2.91	0.55	—	—
Junior (Year 3)	2.75	0.52	—	—
Senior (Year 4)	2.58	0.50	—	—

4.5 Visualised Variable Distribution & Correlation Trends

Figure 2 presents comparative bar charts of mean scores for all SRL sub-dimensions and four anxiety sub-components, illustrating relative strategy utilisation frequency

and primary anxiety sources within the sample. Figure 3 displays a scatter plot with linear regression fit line visualising the strong negative association between metacognitive self-regulation and composite speaking anxiety, with $R^2 = 0.52$ confirming substantive shared variance between the two core constructs.

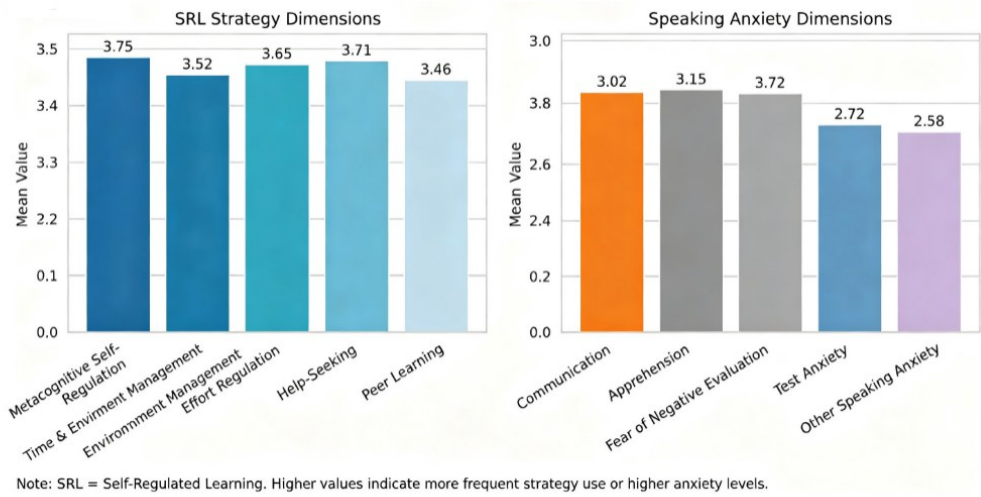


Figure 2 Mean Value Comparison of SRL Strategy Dimensions and Speaking Anxiety Sub-Dimensions

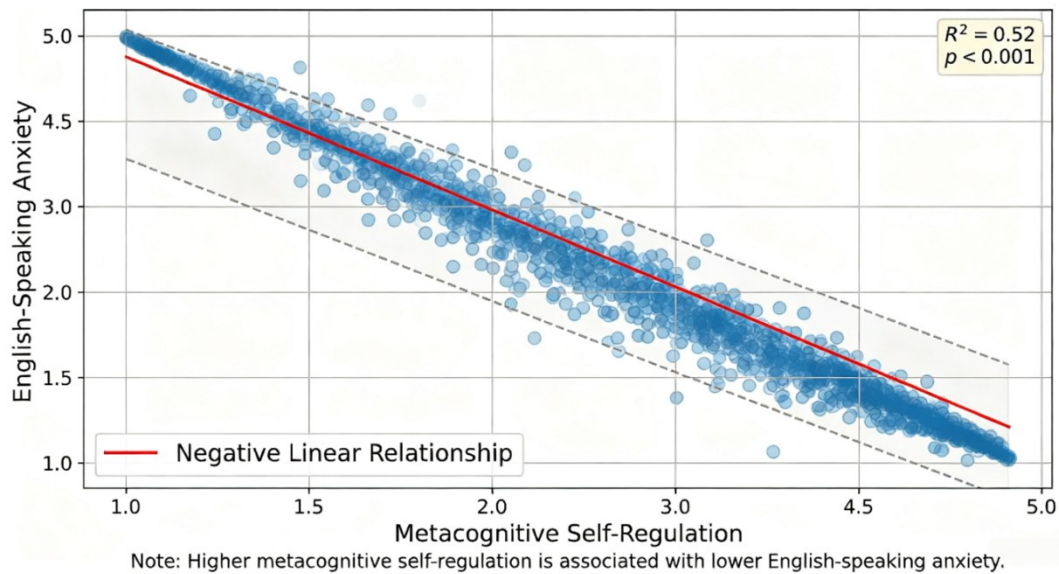


Figure 3 Scatter Plot & Linear Fit Curve: Metacognitive Self-Regulation and Composite Speaking Anxiety Note: Higher numerical values correspond to more frequent strategy use or elevated anxiety intensity.

5 Discussion

5.1 Baseline SRL Utilisation and Speaking Anxiety: Cross-Context Comparative Analysis

The medium-high overall frequency of SRL strategy deployment among sampled pre-service teachers aligns with quantitative data from pre-service language educator cohorts in Southeast Asian and Southern European teacher education systems, indicating modern university language training globally fosters basic autonomous learning awareness among teacher trainees. Metacognitive regulation and help-seeking emerge as the most widely adopted tactics, consistent with standard university instructional design that emphasises learning planning and instructor consultation for academic coursework.

Moderate baseline speaking anxiety, with fear of negative evaluation and communication apprehension as dominant stressors, mirrors cross-national research on EFL pre-service teachers across East Asia, Southeast Asia, and Eastern Europe. Cross-cultural comparison reveals that teacher trainees universally exhibit amplified sensitivity to peer/instructor judgment of oral performance due to their professional identity as future language instructors, regardless of national educational context. While exam-centric learning traditions amplify this anxiety within East Asian samples, comparable evaluative apprehension appears in EFL programmes with high-stakes oral assessment structures worldwide.

5.2 Theoretical Mechanism Linking SRL Deployment to Reduced Speaking Anxiety

Consistent with Bandura's social cognitive theory and Zimmerman's three-phase SRL cycle, the universal negative correlation between all regulatory strategies and oral anxiety validates SRL's affective buffering function for language learners globally. Self-regulated practice dismantles the passive learning cycle that sustains communicative apprehension by granting learners perceived control over oral practice volume, difficulty, and feedback channels. The three-stage SRL framework explains the sequential anxiety-reduction pathway: forethought goal-setting eliminates ambiguous practice expectations that trigger nervousness; real-time performance monitoring enables immediate correction of linguistic errors without catastrophic rumination; post-task reflective attribution reframes performance shortcomings as modifiable strategic gaps rather than permanent linguistic incapacity, boosting domain self-efficacy over time.

Attribution theory further contextualises these correlational results: trainees who regularly deploy effort regulation and help-seeking tactics attribute oral performance struggles to insufficient practice or limited targeted feedback, rather than inherent lack of talent—this adaptive attribution style prevents the development of chronic speaking anxiety, a pattern replicated in longitudinal SRL intervention studies conducted across European and Southeast Asian EFL contexts.

5.3 Differential Predictive Power of Core Anxiety-Buffering SRL Strategies

Regression analysis confirms metacognitive self-regulation, effort regulation, and help-seeking as the three dominant anxiety-mitigation predictors, a finding with transferable instructional value for global teacher education curricula. Metacognition operates as the foundational regulatory mechanism, as it coordinates all planning, monitoring, and reflective stages of oral learning to reduce uncertainty—the primary trigger of performance anxiety across all EFL populations. Effort regulation sustains consistent oral practice despite temporary communicative failure, generating the mastery experiences required to build linguistic self-efficacy per Bandura's theoretical model. Help-seeking resolves skill bottlenecks that otherwise produce persistent communicative insecurity, eliminating a key structural source of speaking anxiety for pre-service teachers worldwide.

Time/environment management and peer collaborative learning demonstrate non-significant predictive effects within this sample, a trend partially echoed in comparative studies from other East Asian EFL teacher cohorts. Limited structured peer oral practice frameworks and inconsistent independent study scheduling across university environments dilute the anxiety-reduction potential of these two tactics, indicating global teacher education programmes require intentional structured group oral tasks and guided time-management training to unlock their affective regulation benefits.

5.4 Cross-National Transferable Insights for Global Teacher Education

Beyond the local Chinese sample context, the study's core empirical outputs generate universally applicable recommendations for international EFL pre-service teacher training programmes:

All language teacher education curricula should embed mandatory metacognitive oral learning training modules, guiding trainees to design structured practice cycles with built-in self-monitoring and reflective evaluation;

Instructor training should prioritise effort regulation coping strategy instruction, equipping pre-service teachers with motivational persistence tactics to navigate oral learning setbacks;

Formalised structured help-seeking channels (targeted office hours, peer tutoring systems, specialised oral feedback workshops) must be institutionalised within teacher education programmes to reduce communicative anxiety;

Peer collaborative learning interventions require structured guided practice frameworks to deliver meaningful anxiety reduction outcomes, rather than unorganised informal group discussion;

Oral assessment rubrics and classroom speaking activities should be redesigned to lower fear of negative evaluation, a cross-cultural primary anxiety source for pre-service language educators.

5.5 Acknowledged Methodological Limitations

Cross-sectional static survey design prohibits causal inference: the measured negative correlation cannot confirm directional influence between SRL and anxiety; longitudinal pre-post intervention experimental research is required to verify whether SRL training actively reduces speaking anxiety over time.

Sample geographic restriction: data is limited to public university pre-service English teachers within China, excluding private teacher colleges, postgraduate trainees, and pre-service educators from non-EFL national contexts. Replication across diverse regional ESL/EFL systems is necessary to fully validate model generalisability.

Exclusive quantitative methodology: survey-only data omits qualitative contextual insights (in-depth trainee interviews, classroom observation) that would unpack subjective lived experiences of SRL and speaking anxiety, limiting depth of affective mechanism analysis. Mixed-method designs are recommended for follow-up inquiry.

6 Conclusion

6.1 Consolidated Empirical Findings

Sampled pre-service English teachers demonstrate medium-high overall self-regulated learning strategy utilisation and moderate baseline foreign language speaking anxiety; fear of negative evaluation and communication apprehension constitute the primary anxiety sub-dimensions impacting oral performance.

Every discrete SRL sub-dimension holds a statistically significant negative linear correlation with composite speaking anxiety: increased regulatory strategy deployment corresponds to reduced oral performance apprehension across all measured anxiety components.

Metacognitive self-regulation, effort regulation, and help-seeking function as robust unique negative predictors of speaking anxiety, jointly explaining 60.7% of variance in trainee anxiety levels; time/environment management and unstructured peer learning do not yield statistically significant anxiety-buffering predictive effects.

Speaking anxiety exhibits consistent downward trends across four years of teacher education training, correlating with cumulative growth in self-regulated learning skill proficiency over the undergraduate programme.

6.2 Global Pedagogical & Theoretical Implications

6.2.1 International Teacher Education Curriculum Design

Language teacher education programmes across all EFL/ESL national contexts should restructure oral language training to centre targeted instruction on the three high-impact anxiety-mitigation SRL strategies identified in this research. Structured metacognitive planning workshops, motivational effort persistence training, and formalised guided help-seeking systems must be integrated into core undergraduate

language coursework to reduce pre-service teachers' oral performance anxiety at a systemic curricular level. Instructors should design low-stakes, structured peer oral practice frameworks to unlock the anxiety-reduction potential of collaborative learning tactics.

6.2.2 Advancement of Cross-Cultural SRL and Language Affect Theory

This study reinforces the cross-context generalisability of Zimmerman's three-phase self-regulated learning cycle and Bandura's social cognitive self-efficacy framework for explaining affective regulation in pre-service language teacher populations. It expands empirical quantitative evidence linking multi-dimensional SRL tactics to foreign language anxiety outside Western-centric ESL research contexts, providing comparative East Asian dataset for global meta-analyses of language learning affect. The disaggregated predictive analysis of distinct regulatory sub-dimensions resolves a documented gap in existing correlational literature, generating granular theoretical insight into which self-regulatory mechanisms exert the strongest influence on oral performance apprehension.

6.3 Future Cross-Context Research Directions

Longitudinal intervention research: Implement multi-wave tracking of pre-service teachers over four years of training, paired with controlled SRL strategy training interventions to test causal directional effects between regulatory behaviour and speaking anxiety.

Cross-national comparative sampling: Recruit pre-service language educators from European, Southeast Asian, African, and Latin American EFL/ESL institutions to test the transferability of the five-dimensional predictive model across divergent educational systems.

Mixed-method inquiry: Integrate open-ended trainee interviews and classroom observational data alongside quantitative surveys to capture subjective qualitative accounts of anxiety and self-regulated learning practice, enriching mechanistic theoretical analysis.

Mediating/moderating variable exploration: Test linguistic self-efficacy, classroom communicative atmosphere, and learning motivation as intervening or conditional variables within the SRL-anxiety predictive pathway to build a more comprehensive multi-layered theoretical model of oral performance affect.

6.4 Concluding Synthesis

This correlational quantitative study grounds its analysis in Bandura's social cognitive theory and Zimmerman's cyclic self-regulated learning framework, exploring the predictive relationship between multi-dimensional SRL strategies and foreign language speaking anxiety using a large sample of pre-service English teachers from Chinese public teacher education institutions as a contextual empirical case. Statistical analysis confirms consistent negative associations between all self-

regulatory tactics and oral anxiety, isolating metacognitive self-regulation, effort regulation, and help-seeking as core intervention levers to mitigate trainee communicative apprehension.

The findings demonstrate that structured self-regulated learning training constitutes a powerful internal psychological intervention to reduce speaking anxiety for pre-service language educators worldwide, transcending the local East Asian sampling context to deliver actionable curriculum reform guidance for international teacher education programmes. Mastery of targeted SRL tactics equips future language teachers to independently manage oral performance stress during university training and fosters the confident communicative instructional practice required to build active oral learning cultures within global K-12 EFL classrooms. Though constrained by cross-sectional survey methodology and geographically bounded sampling, the research addresses critical gaps in context-general scholarship on pre-service teachers' language learning affect, supplying robust quantitative empirical evidence and cross-nationally transferable pedagogical frameworks for global applied linguistics and teacher education research.

Acknowledgement

This research project was supported by the 2024 Hunan Provincial Vocational College Education and Teaching Reform Research Project: "An Application Study of the SPOC-Based Blended Teaching Model in Vocational English Speaking Instruction from the Perspective of Core Competencies".

References

- [1] Al Asmari, A. (2021). The impact of self-regulated learning strategies on foreign language speaking anxiety among EFL university students. *Journal of Language Teaching and Research*, 12(3), 512–520.
- [2] Batuhan, U. (2021). Affect regulation as a core self-regulated learning strategy to mitigate foreign language speaking anxiety. *Journal of Second Language Writing*, 39, 103421.
- [3] Chen, L., & Wang, H. (2022). Foreign language anxiety and self-regulated learning: A systematic review. *Frontiers in Psychology*, 13, 896721.
- [4] Du, G., & Man, D. (2022). Metacognitive self-regulation and oral anxiety among Chinese EFL undergraduates: A mediating model of self-efficacy. *System*, 107, 102801.
- [5] Gaina, B. M. (2026). Learning motivation, self-regulated help-seeking and speaking anxiety of EFL pre-service teachers. *Esteem Journal of Language and Education*, 7(1), 45–58.
- [6] Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125–132.
- [7] Huang, J. (2021). English speaking anxiety of Chinese EFL learners: Scale revision and empirical analysis. *Chinese Journal of Applied Linguistics*, 44(2), 189–205.

- [8] Li, M., & Zhou, S. (2025). Longitudinal changes of SRL strategy use and speaking anxiety across four years of normal university study. *Teacher Education Research*, 37(2), 91–99.
- [9] Li, Y. (2023). Metacognitive regulation and foreign language speaking anxiety among pre-service teachers. *Teacher Education Research*, 35(4), 78–85.
- [10] Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate in English. *Language Learning*, 58(1), 99–130.
- [11] Lv, X. (2022). Effort regulation strategy and emotional adjustment in oral English learning. *Foreign Language World*, (3), 45–53.
- [12] Marcial Tejada, K. C. (2025). Self-regulated motivation and speaking performance of pre-service ESL teachers in asynchronous oral tasks. *International Journal of Learning, Teaching and Educational Research*, 24(11), 187–206.
- [13] Mohamad, A. R., Wan Fakhruddin, W. F. W., & Sazalli, N. A. H. (2024). Internal self-regulated coping strategies for speaking anxiety among pre-service language teachers: A systematic review. *Malaysian Journal of Language Studies*, 28(3), 112–130.
- [14] Pintrich, P. R., Smith, D. A., Garcia, T., & McKeachie, W. J. (1991). A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ). University of Michigan Press.
- [15] Serrano, D. N. (2026). Speaking anxiety intervention design based on self-regulated learning theory for pre-service English educators. *International Research in Modern Education*, 9(5), 1–16.
- [16] Sun, Q. (2024). Peer learning and effort regulation: Two neglected SRL dimensions in oral anxiety research for Chinese normal students. *Foreign Language Education in China*, 47(3), 62–69.
- [17] Tang, L., & Yu, H. (2026). Online self-regulated learning and speaking anxiety: Intrinsic motivation as a mediator among pre-service teachers. *Frontiers in Psychology*, 17, 1797013.
- [18] Tran, T. T., & Nguyen, H. T. (2025). Validation of self-regulated speaking strategy scale and its negative prediction on oral anxiety. *Frontiers in Education*, 10, 1464608.
- [19] Wang, L. (2023). Grade disparities in foreign language speaking anxiety and self-regulated learning among English majors. *Modern Foreign Language Teaching*, (6), 41–48.
- [20] Wang, Y. (2024). Help-seeking behavior and speaking anxiety relief of EFL pre-service teachers. *Journal of Normal University Education*, 28(2), 66–73.
- [21] Zhang, J. (2023). Grade differences in foreign language anxiety among English major pre-service teachers. *Modern Foreign Language Teaching*, (5), 29–36.
- [22] Zhang, Y. (2026). Negative emotional trajectories of pre-service EFL teachers and the buffering effect of metacognitive regulation. *European Journal of Education*, 60(2), e70136.

- [23] Zhao, J. (2025). Cross-sectional comparison of SRL predictors of speaking anxiety between public and private normal university students. *Journal of Chinese Applied Linguistics*, 48(1), 76–93.
- [24] Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice*, 41(2), 64–70.
- [25] Zimmerman, B. J. (2015). Self-regulated learning: Theories, mechanisms, and outcomes. *Educational Psychologist*, 50(3), 135–150.

Appendices

Appendix A: English Language Speaking Anxiety Scale (ELSAS)

Anonymous academic research survey, 5-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

I experience intense nervousness when required to speak English during class sessions.

I fear producing grammatical errors in oral English and facing peer ridicule.

Impromptu oral questioning by instructors triggers significant anxiety.

I actively avoid volunteering for public English speaking activities.

Oral English proficiency assessments induce disruptive nervous arousal.

I worry substandard oral performance will damage my academic evaluation outcomes.

Spontaneous English dialogue with peers generates persistent unease.

I hold low self-confidence regarding my oral English expressive capacity.

Formal English speech and debate events produce intense performance anxiety.

Appendix B: Adapted Motivated Strategies for Learning Questionnaire (MSLQ) – Oral English Learning Version

I create structured weekly oral English practice plans aligned with my learning objectives.

I consistently monitor and evaluate the quality of my oral practice output mid-session.

Following oral practice sessions, I summarise and reflect on persistent expressive weaknesses.

I rationally allocate spare daily time dedicated to intentional oral English training.

I actively design low-pressure English communicative environments for independent practice.

I sustain consistent oral practice effort even when encountering persistent expressive obstacles.

I deploy intentional psychological adjustment tactics when oral learning anxiety emerges.

I proactively consult instructors and peers for targeted support with oral communication bottlenecks.

I voluntarily participate in structured group oral practice for reciprocal feedback exchange.