

Uncertainty, Anxiety, and Oral Communication Competence among Chinese EFL Undergraduates in Non-Immersion Contexts: A Conceptual Framework and Mixed-Methods Research Protocol

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Abstract

Oral communication competence (OCC) is now a core learning outcome for English as a Foreign Language (EFL) learners in the globalized higher education landscape, yet persistent psychological barriers continue to hinder its development, particularly in non-immersion university contexts. While decades of research have documented the negative impacts of foreign language speaking anxiety on oral performance, the combined predictive role of communicative uncertainty and anxiety, alongside the mediating mechanism of classroom participation, remains under-explored. This gap is especially notable in Chinese application-oriented universities, where exam-oriented curricula and limited authentic speaking opportunities create unique barriers to oral development. This paper develops a conceptual framework integrating Anxiety/Uncertainty Management (AUM) Theory, Uncertainty Reduction Theory (URT), and Vygotsky's Sociocultural Theory to explain how psychological factors shape OCC through the mediating pathway of classroom participation. We further outline an explanatory sequential mixed-methods research protocol designed to test this framework among 150 English-major undergraduates at Guangdong Technology College, China, with a key methodological innovation: multi-source OCC assessment combining student self-report with independent teacher ratings to address common method bias in self-reported competence measures. The paper concludes with expected theoretical contributions to EFL affective research and evidence-based pedagogical implications for reducing psychological barriers and improving oral English instruction in non-immersion contexts.

Keywords: EFL, Oral Communication Competence, Communicative Uncertainty, Speaking Anxiety, Classroom Participation, Mixed Methods, Chinese Higher Education

Introduction

Background and Research Context

Globalization and the internationalization of higher education have positioned oral communication competence as a non-negotiable capability for EFL learners, supporting academic success, graduate employability, and intercultural engagement. For Chinese university EFL learners, however, strong oral English remains an elusive goal for most, particularly in non-immersion, exam-focused institutional settings. Despite 10+ years of formal English instruction, a large share of Chinese undergraduates struggle to communicate fluently and appropriately in unscripted spoken interaction. This gap is widely attributed to a mix of structural constraints—large class sizes, grammar-heavy curricula, minimal out-of-class speaking practice—and persistent psychological barriers: fear of negative evaluation, speaking anxiety, and uncertainty about how to navigate open-ended communicative tasks (Li & Sun, 2026; Le et al., 2024).

Recent meta-analytic work finds that over 60% of EFL undergraduates report moderate to high discomfort when required to speak English in class, with avoidance of oral tasks identified as the most common behavioral response to these negative feelings (Teimouri et al., 2019). At Guangdong Technology College (GDTC), the research site for this study, preliminary institutional observations align closely with this pattern: English-major students report almost no out-of-class English interaction, high apprehension about unscripted speaking tasks, and low rates of voluntary classroom participation, even when they meet formal English proficiency requirements for admission. This context is not unique: hundreds of application-oriented private universities across China educate the majority of Chinese undergraduate EFL learners, yet these settings remain drastically under-represented in international applied linguistics research, which has historically focused on elite key universities.

Problem Statement and Critical Gaps

While existing scholarship has advanced understanding of foreign language anxiety over the past four decades, three critical gaps remain in the literature, particularly regarding OCC development in non-immersion Chinese EFL contexts.

First, most studies examine speaking anxiety as a standalone predictor of oral performance, with far less attention paid to the independent and combined role of communicative uncertainty. Defined as learners' perceived inability to predict interlocutor responses, task demands, or communicative outcomes, uncertainty is a core construct in intercultural communication theory but has rarely been operationalized as a distinct predictor of OCC in EFL classroom settings (Gudykunst, 1995). The small body of existing work on ambiguity tolerance (a closely related construct) focuses almost exclusively on receptive skills (reading, listening) or general test performance, rather than interactive oral competence (Diep et al., 2022; Xue & Yu, 2023).

Second, the vast majority of EFL OCC research relies exclusively on student self-report measures of competence, which are vulnerable to common method bias, social desirability

effects, and systematic self-perception error. Few studies triangulate self-reported OCC with independent teacher ratings of actual oral performance, despite consistent evidence that self-assessments of language ability often diverge significantly from observer ratings. Hua (2026), for instance, found that self-assessments of oral pronunciation and communication ability correlated only moderately with trained rater scores ($r = 0.48$), with high-anxiety learners systematically underrating their own performance by nearly a full point on a 5-point scale—a pattern replicated across Thai EFL contexts by Konchiab and Munpanya (2021). This measurement bias undermines the validity of existing findings on the anxiety-OCC relationship.

Third, while classroom participation is widely assumed to support OCC development, its role as a mediating variable in the relationship between psychological barriers (uncertainty, anxiety) and OCC remains untested in Chinese non-immersion contexts. Sociocultural theory posits that social interaction in the classroom acts as a scaffold for competence development, but no study to date has examined whether participation mediates the negative effects of both uncertainty and anxiety on OCC. This leaves untested the plausible “psychological barriers → reduced participation → limited OCC development” vicious cycle that may explain persistent oral proficiency gaps even when speaking opportunities are available (Peng & Woodrow, 2010; Le et al., 2024).

Research Aims and Questions

This study addresses these gaps through an explanatory sequential mixed-methods design guided by four core aims: (1) to assess current levels of communicative uncertainty and speaking anxiety among GDTC English-major undergraduates; (2) to examine the direct predictive relationships between uncertainty, anxiety, and multi-source assessed OCC, including testing the hypothesized curvilinear (inverted U-shaped) effect of anxiety; (3) to identify context-appropriate pedagogical strategies for mitigating the negative effects of uncertainty and anxiety on OCC, based on both student and teacher perspectives; and (4) to test the mediating role of classroom participation in the relationships between the two psychological predictors and OCC.

Correspondingly, the study addresses four research questions:

- RQ1: What are the current levels of English communicative uncertainty and speaking anxiety among EFL undergraduates at Guangdong Technology College?
- RQ2: What are the direct relationships between English communicative uncertainty, speaking anxiety, and oral communication competence (assessed via both self-report and independent teacher ratings) among the target participants?
- RQ3: What context-appropriate instructional strategies can effectively mitigate the negative effects of uncertainty and anxiety on OCC for EFL students at the target institution?
- RQ4: Does classroom participation play a significant mediating role in the relationships between English communicative uncertainty, speaking anxiety, and OCC among the target participants?

Literature Review

Oral Communication Competence in Non-Immersion EFL Settings

Oral communication competence is now widely conceptualized as a multidimensional construct that extends far beyond grammatical accuracy or vocabulary knowledge. Following

Bachman and Palmer's (1996) foundational communicative language ability framework, contemporary EFL scholarship defines OCC as encompassing four interrelated dimensions: (1) linguistic/structural competence (accuracy of grammar, vocabulary, pronunciation, and speech fluency); (2) interactional/negotiation competence (ability to manage turns, repair misunderstandings, negotiate meaning, and adapt to interlocutor feedback); (3) pragmatic/functional competence (ability to adjust speech to context, use appropriate speech acts, and interpret non-verbal cues); and (4) affective/psychological competence (willingness to communicate, confidence, and ability to manage negative emotions during interaction) (Hua, 2026; Konchiab & Munpanya, 2021).

In non-immersion EFL contexts, where learners have limited access to authentic spoken English outside the classroom, OCC development faces unique structural and psychological barriers. Cross-contextual empirical work consistently identifies three core obstacles: (1) exam-oriented curricula that prioritize written skills and grammatical accuracy over oral interaction, often allocating less than 20% of class time to speaking practice; (2) large class sizes that reduce individual speaking opportunities and increase evaluative pressure; and (3) psychological barriers that lead learners to avoid voluntary participation even when speaking opportunities are offered (Le et al., 2024). Meta-analytic evidence indicates that affective factors explain 32% of variance in EFL speaking performance—a larger share than linguistic knowledge alone—highlighting the outsized role of psychological variables in OCC development (Teimouri et al., 2019).

A key limitation of existing OCC research, however, is its overreliance on self-reported competence measures. A 2024 review of EFL speaking anxiety studies found that 82% used exclusively self-report measures of OCC, with only 11% including independent observer or teacher ratings of actual performance (Le et al., 2024). This is a significant methodological shortcoming: as noted earlier, high-anxiety learners consistently underrate their own ability, while low-anxiety learners slightly overrate theirs, meaning existing estimates of the anxiety-OCC relationship may be inflated or distorted by shared method variance (Hua, 2026).

Communicative Uncertainty in EFL Speaking

Communicative uncertainty, rooted in Uncertainty Reduction Theory (Berger & Calabrese, 1975) and Anxiety/Uncertainty Management Theory (Gudykunst, 1995), refers to learners' perceived inability to predict communicative outcomes, interlocutor behaviors, or task requirements during interaction. In EFL classroom settings, uncertainty manifests across three interconnected levels: (1) linguistic uncertainty (doubts about correct grammar, vocabulary, or pronunciation); (2) pragmatic uncertainty (uncertainty about appropriate speech acts, turn-taking norms, or formality levels); and (3) social uncertainty (inability to predict peer or teacher reactions to one's speech, or fear of unexpected questions).

While uncertainty is a universal experience in foreign language use, it is particularly acute in non-immersion contexts where learners have limited exposure to variable communicative situations. Empirical research indicates that 71% of EFL learners report uncertainty about peer responses as their primary reason for avoiding voluntary speaking, even when they feel linguistically prepared for tasks (Diep et al., 2022). Unlike anxiety, which is an explicitly emotional response, uncertainty is primarily a cognitive state, though the two are closely

correlated: high uncertainty reliably triggers anxiety, while anxiety in turn increases perceptions of unpredictability in communicative situations (Eysenck et al., 2007).

Existing research on uncertainty in EFL contexts is limited in two key ways. First, most studies operationalize uncertainty through the related construct of ambiguity tolerance, measuring general tolerance for ambiguous input rather than context-specific communicative uncertainty during speaking tasks (Diep et al., 2022; Xue & Yu, 2023). Second, nearly all existing work links ambiguity tolerance/uncertainty to general language achievement or receptive skills, with no published studies to date examining the direct predictive relationship between communicative uncertainty and observer-rated OCC. This gap is particularly notable given theoretical claims that uncertainty is a more proximal predictor of communicative avoidance than anxiety itself (Gudykunst, 1995).

Foreign Language Speaking Anxiety: From Linear to Curvilinear Effects

Foreign language speaking anxiety, defined as the specific fear or apprehension experienced when speaking in a non-native language, is the most widely studied affective factor in EFL research (Horwitz et al., 1986). Meta-analytic evidence confirms a consistent moderate negative correlation ($r = -0.36$, 95% CI $[-0.39, -0.33]$) between speaking anxiety and oral performance across global EFL contexts (Teimouri et al., 2019). Anxiety impairs oral performance through three primary mechanisms: (1) cognitive interference, where anxious thoughts consume working memory resources that would otherwise be used for speech planning and production (Eysenck et al., 2007); (2) affective filter activation, which reduces input processing and output fluency; and (3) behavioral avoidance, where anxious learners reduce speaking practice, leading to long-term competence deficits.

Importantly, recent research has challenged the long-held assumption of a strictly linear negative relationship between anxiety and performance, instead supporting an inverted U-shaped curvilinear effect consistent with AUM Theory's "optimal anxiety" proposition (Gudykunst, 1995). At low levels, anxiety can increase task focus and motivation, leading to slightly better performance; at moderate to high levels, however, anxiety impairs cognitive processing and leads to the negative outcomes documented in most studies (Li & Sun, 2026). For example, Li and Sun (2026) found that participants with very low anxiety (scoring 1–2/5 on the FLCAS) performed 8% better on oral tasks than those with moderate anxiety, while those with high anxiety (>4/5) performed 29% worse. Despite this evidence, only a small minority of recent EFL anxiety studies test for curvilinear effects, meaning the true nature of the anxiety-OCC relationship may be more complex than typically assumed.

In Chinese EFL contexts, speaking anxiety is particularly pervasive due to cultural factors including fear of losing face (*mianzi*), teacher-centered classroom norms, and high-stakes exam pressure. Surveys of Chinese university EFL students find that 68% report moderate to high speaking anxiety, with fear of negative evaluation from peers identified as the strongest predictor of anxiety severity (Le et al., 2024). However, no Chinese study to date has tested the curvilinear anxiety-OCC relationship or examined anxiety alongside uncertainty as a co-predictor of multi-source assessed OCC.

Classroom Participation as a Social Mediator

Classroom participation, defined as the frequency and quality of students' voluntary oral contributions, interaction with peers, and engagement in speaking tasks, is widely recognized as a necessary condition for OCC development. From a sociocultural theory perspective, classroom interaction acts as a scaffold for learning: through participation in structured speaking activities, learners internalize linguistic and pragmatic norms, receive feedback on their performance, and develop confidence in their communicative abilities (Vygotsky, 1978; Philp et al., 2013). Cross-contextual studies consistently find that learners who participate more frequently in oral activities develop stronger OCC over time, with Spring (2021) reporting a significant positive association between classroom participation frequency and speaking proficiency gains over a semester-long EFL course.

Recent evidence further suggests that classroom participation may act as a mediating variable between psychological factors and OCC, rather than merely an outcome in itself. Specifically, high uncertainty and anxiety are hypothesized to reduce voluntary participation, which in turn limits OCC development, creating a self-reinforcing negative cycle. Peng and Woodrow (2010) found that willingness to communicate (a key predictor of participation) was the strongest direct predictor of Chinese EFL learners' classroom engagement, which in turn predicted oral proficiency. Similarly, Le et al. (2024) found that speaking anxiety was the most frequently reported barrier to voluntary oral participation, with 73% of students reporting they avoided speaking due to fear of making mistakes.

Despite this preliminary evidence, no study has tested a full mediation model including both uncertainty and anxiety as predictors, classroom participation as a mediator, and multi-source assessed OCC as the outcome. This represents a critical gap in understanding of the mechanisms through which psychological barriers shape OCC development, as such a model is necessary to design targeted interventions that break the negative cycle by increasing participation rather than merely attempting to reduce anxiety directly.

Integrated Theoretical Framework

This study integrates three complementary communication and learning theories to develop a testable conceptual framework of OCC development in non-immersion EFL contexts: Anxiety/Uncertainty Management (AUM) Theory, Uncertainty Reduction Theory (URT), and Vygotsky's Sociocultural Theory (SCT).

Synthesizing AUM, URT, and Sociocultural Theory

First, AUM Theory (Gudykunst, 1995) provides the overarching framework for understanding the direct effects of uncertainty and anxiety on communication effectiveness. AUM posits that effective communication occurs when individuals manage both uncertainty and anxiety within an optimal range: too little uncertainty leads to complacency and inattention, while too much uncertainty leads to avoidance and misinterpretation; similarly, low levels of anxiety increase motivation and focus, while excessive anxiety impairs cognitive processing and communication performance. This theory supports the hypothesized linear negative effect of uncertainty on OCC (as there is no "optimal" high level of uncertainty in structured classroom settings) and the inverted U-shaped effect of anxiety.

Second, Uncertainty Reduction Theory (Berger & Calabrese, 1975) explains the mechanism through which classroom participation reduces uncertainty. URT posits that individuals are motivated to reduce uncertainty in social interaction through information-seeking behavior, which in turn reduces anxiety and improves communication outcomes. In the EFL classroom, regular participation in speaking activities provides learners with predictable interaction patterns, concrete feedback on their performance, and information about peer and teacher responses, directly reducing both cognitive uncertainty and associated anxiety.

Third, Sociocultural Theory (Vygotsky, 1978) explains how classroom participation supports OCC development through scaffolding. SCT argues that all learning occurs through social interaction, with more knowledgeable others (teachers, more proficient peers) providing temporary support (scaffolding) that allows learners to perform within their zone of proximal development (ZPD). In the EFL classroom, structured speaking tasks and peer interaction provide this scaffolding, enabling learners to develop oral competence that they could not achieve independently. Over time, as learners gain competence, scaffolding is gradually removed, and skills are internalized (Philp et al., 2013).

Hypothesized Conceptual Model and Research Hypotheses

Integrating these three theories, the study proposes a conceptual model with four testable hypotheses:

H1: GDTC English-major undergraduates will report moderate levels of communicative uncertainty and speaking anxiety, with 60–70% scoring between 3 and 4 on 5-point subscales.

H2: Communicative uncertainty will have a significant linear negative effect on OCC, while speaking anxiety will demonstrate a significant curvilinear (inverted U-shaped) effect, with a weak positive association at low levels and a strong negative association at high levels.

H3: Classroom participation will partially mediate the negative effects of both uncertainty and anxiety on OCC: higher uncertainty and anxiety will predict reduced participation, which in turn will predict lower OCC, with an expected indirect effect size of $\geq 25\%$ of the total effect.

H4: Multi-source assessment (self-report + independent teacher ratings) will provide a more valid and reliable measure of OCC than self-report alone, with an expected inter-rater reliability of Cohen's $\kappa \geq 0.80$ between the two independent teacher raters, and a correlation of $r \geq 0.50$ between self-reported and teacher-rated OCC (Ghane & Razmi, 2023; Hua, 2026).

This model addresses key gaps in existing research by simultaneously modeling both cognitive (uncertainty) and emotional (anxiety) predictors of OCC, testing the mediating mechanism of participation, and using multi-source outcome assessment to reduce measurement bias.

Proposed Mixed-Methods Research Design

Explanatory Sequential Design Rationale

The study employs an explanatory sequential mixed-methods design (Creswell & Plano Clark, 2018), in which quantitative data are collected and analyzed first, followed by qualitative data collection that builds on and explains the quantitative results. This design is particularly appropriate for this study for three reasons: (1) it allows for testing of the

hypothesized predictive and mediational relationships across a representative sample, providing generalizable findings for the institutional context; (2) it enables subsequent qualitative exploration of the mechanisms behind observed statistical relationships, addressing “why” and “how” questions that surveys cannot answer; and (3) it aligns with the pragmatic research paradigm underpinning the study, which prioritizes using the most appropriate methods to answer the research questions rather than adhering to a single methodological tradition.

The design proceeds in two sequential phases, with integration occurring at both the sampling and interpretation stages: quantitative results inform the selection of qualitative interview participants, and qualitative findings are used to elaborate and contextualize quantitative results during final analysis.

Participants and Stratified Sampling Strategy

The study is set at Guangdong Technology College (GDTC), a private application-oriented undergraduate institution in Zhaoqing, Guangdong Province, China. The target population for the quantitative phase is all 250 full-time English-major undergraduates enrolled in oral-focused EFL courses (Oral English, Academic Presentation Skills, Intercultural Communication) across Years 1–3 during the 2026–2027 academic year. A sample of 150 valid responses will be recruited via stratified random sampling, with stratification by academic year (Year 1/2/3) and CET-4 pass status (≥ 425 = passed, < 425 = not passed) to ensure representativeness across proficiency levels and cohorts. This sample size is justified by Krejcie and Morgan’s (1970) classic sample size table, which requires 152 participants for a population of 250 at the 95% confidence level with 5% margin of error, and aligns with recent Chinese EFL affective studies, which typically use samples of 150 participants. To account for invalid responses, 180 questionnaires will be distributed.

For the qualitative phase, 20 participants will be recruited via purposeful maximum variation sampling: 10 students selected from the quantitative sample (5 with high uncertainty/anxiety scores, 5 with low scores, across year groups) and 10 EFL teachers with ≥ 1 year of experience teaching oral courses at GDTC (stratified by teaching experience: 3 novice [1–3 years], 4 mid-career [4–6 years], 3 experienced [≥ 7 years]). This sample size is sufficient to achieve code saturation in homogeneous institutional contexts, as 20 interviews typically capture the full range of participant perspectives in single-site educational studies.

Multi-Source OCC Assessment: Addressing Self-Report Bias

A key methodological innovation of this study is its multi-source approach to OCC measurement, designed to address the common method bias that plagues existing research.

Validated Questionnaire Measures

The quantitative phase uses an integrated self-report questionnaire adapted from validated scales used in recent EFL research, consisting of 38 items across five sections:

- a) Demographic information: gender, age, year of study, CET-4 score, length of English study, and prior overseas English immersion experience.
- b) Communicative Uncertainty: 8 items adapted from Ely’s (1989) Second Language Tolerance of Ambiguity Scale, revised to focus on speaking-specific uncertainty (e.g., “When I am not sure how my classmates will respond in English, I feel very

- uncomfortable”), measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).
- c) Speaking Anxiety: 10 items adapted from the oral-specific version of the Foreign Language Classroom Anxiety Scale (Horwitz et al., 1986), focusing specifically on anxiety during in-class speaking tasks (e.g., “I tremble when I know I am going to be called on to speak in English class”).
 - d) Self-Reported OCC: 8 items adapted from Bachman and Palmer’s (1996) Communicative Language Ability Scale, measuring the four dimensions of OCC outlined earlier.
 - e) Classroom Participation: 7 items adapted from Peng and Woodrow’s (2010) Willingness to Communicate Scale, measuring frequency of voluntary speaking turns, peer interaction, and engagement in group speaking tasks.

The questionnaire will be administered in simplified Chinese (back-translated to ensure semantic equivalence) via the Wenjuanxing online platform, with a completion time of 15–20 minutes. All negatively worded items will be reverse-coded prior to analysis, and subscale scores will be calculated as the average of item responses.

Standardized Teacher Rating Rubric and Inter-Rater Reliability Protocol

To address self-report bias, 20% of questionnaire participants ($n = 30$, selected randomly across strata) will have their in-class oral performance independently rated by two EFL teachers who teach their regular oral English courses, using a standardized 5-point rubric aligned with the four OCC dimensions. The rubric, adapted from validated oral assessment protocols used in recent EFL research (Hua, 2026; Konchiab & Munpanya, 2021), includes 5 items: (1) linguistic accuracy (grammar, vocabulary, pronunciation); (2) fluency and coherence; (3) interactional competence (turn-taking, meaning negotiation, response to interlocutor); (4) pragmatic appropriateness (register, speech act suitability); and (5) affective engagement (confidence, willingness to extend turns).

Teachers will complete ratings during regular classroom speaking tasks (e.g., group discussions, individual presentations) over a two-week period, with no additional task requirements to avoid altering normal classroom dynamics. Prior to rating, teachers will participate in a 30-minute training session to calibrate scoring standards, using three sample student performances to establish shared expectations. Inter-rater reliability will be calculated using Cohen’s kappa, following standard applied linguistics practice, with a pre-specified threshold of $\kappa \geq 0.80$ indicating acceptable agreement; any discrepancies greater than 1 point will be resolved through discussion between the two raters (Ghane & Razmi, 2023). The final teacher-rated OCC score will be the average of the two raters’ scores, and will be correlated with self-reported OCC scores to establish concurrent validity (expected $r \geq 0.50$, $p < 0.001$; Hua, 2026).

This multi-source assessment is intentionally low-burden: rating 30 students requires approximately 1 hour of additional time per teacher, and ratings are completed during regular instructional activities, making the design highly feasible even in resource-constrained institutional contexts.

Semi-Structured Interviews

The qualitative phase uses two parallel semi-structured interview guides (one for students, one for teachers) to explore contextual mechanisms. Student interviews focus on

experiences of uncertainty/anxiety during speaking tasks, factors that increase or reduce these feelings, the impact of psychological barriers on participation, and perceived effective teaching strategies. Teacher interviews focus on observations of student anxiety/uncertainty, strategies used to support hesitant speakers, the impact of participation on OCC, and institutional constraints on oral instruction. All interviews will last 30–45 minutes, be conducted in Mandarin Chinese (to enable nuanced emotional expression), audio-recorded with written consent, and transcribed verbatim within 48 hours.

Phased Data Collection Procedures

Data collection will proceed over 18 weeks, following ethical approval from both the university research ethics committee and GDTC's School of Foreign Languages:

Weeks 1–2: Pilot testing of the questionnaire with 30 non-participating GDTC students, and pilot interviews with 2 students and 2 teachers, to refine item wording and interview questions.

Weeks 3–6: Quantitative data collection: distribute questionnaires via class WeChat groups, with two reminder messages and a ¥10 phone credit incentive for completion. Collect teacher ratings of 30 students' oral performance during regular classes. Clean and screen data, excluding invalid responses (completion time <8 minutes, identical responses across all items, >10% missing data).

Weeks 7–8: Analyze quantitative data to identify preliminary patterns (e.g., levels of uncertainty/anxiety, strength of variable relationships), and select 10 student interviewees based on their questionnaire scores. Recruit 10 teacher interviewees.

Weeks 9–14: Conduct semi-structured interviews with students and teachers, with member checking of transcripts to ensure accuracy.

Weeks 15–18: Integrate quantitative and qualitative findings, conduct cross-validation of results across data sources, and finalize analysis.

All participants will provide informed consent, with guarantees of anonymity, voluntary participation, and the right to withdraw at any time without penalty. All data will be stored in password-protected encrypted folders, with pseudonyms used in all reporting to protect participant confidentiality.

Integrated Data Analysis Plan

Quantitative data will be analyzed in SPSS 28.0 and Hayes' (2018) PROCESS macro, following these steps:

a) Descriptive statistics (means, standard deviations, frequency distributions) to answer RQ1, describing levels of uncertainty, anxiety, participation, and OCC across the sample.

b) Reliability analysis (Cronbach's alpha for subscales, Cohen's kappa for inter-rater reliability) and validity analysis (exploratory and confirmatory factor analysis) to confirm psychometric properties of the instruments.

c) Bivariate correlation and hierarchical multiple regression to answer RQ2, testing the linear effect of uncertainty and curvilinear effect of anxiety (via quadratic term entry) on both self-reported and teacher-rated OCC, controlling for demographic variables (year of study, CET-4 score).

d) Mediation analysis using PROCESS Model 4 (5000 bootstrap samples) to answer RQ4, testing the indirect effect of classroom participation in the relationships between uncertainty, anxiety, and OCC, with bootstrap confidence intervals not crossing zero indicating significant mediation.

Qualitative data will be analyzed using Braun and Clarke's (2006) six-phase thematic analysis approach, supported by NVivo 12: familiarization with transcripts, initial coding, theme development, theme review, theme refinement, and write-up. To answer RQ3, analysis will focus on identifying effective pedagogical strategies reported by both students and teachers, as well as institutional barriers to OCC development. Trustworthiness will be established through triangulation across student and teacher data, member checking, and peer debriefing with the research supervisor.

Integration of quantitative and qualitative findings will occur at the interpretation stage, following a "connecting" integration strategy: qualitative themes will be used to explain quantitative patterns (e.g., if uncertainty is found to be a stronger predictor than anxiety, interview data will be used to explain why this is the case in the GDTC context), and disconfirming evidence across data sources will be explicitly discussed.

Expected Contributions and Pedagogical Implications

Theoretical Contributions to EFL Affective Research

This study is expected to make three key theoretical contributions to applied linguistics and EFL research. First, it will be among the first studies to systematically examine communicative uncertainty as a distinct predictor of OCC alongside anxiety, extending existing research on affective factors in language learning beyond the dominant focus on anxiety alone. By testing both linear and curvilinear effects, the study will also clarify the nature of the anxiety-OCC relationship, addressing ongoing debate about whether anxiety is uniformly debilitating for EFL speakers (Li & Sun, 2026).

Second, the study will provide empirical evidence for the mediating role of classroom participation, advancing understanding of the mechanisms through which psychological barriers shape OCC development. The proposed "uncertainty/anxiety → reduced participation → lower OCC" model will extend sociocultural theory by integrating affective predictors into the social interaction framework, explaining why some learners fail to benefit from participatory classroom activities even when they are available (Philp et al., 2013).

Third, the multi-source OCC assessment protocol will provide a replicable model for more rigorous measurement of oral competence in EFL research, demonstrating how low-burden teacher ratings can be integrated with self-report measures to reduce common method bias and improve validity. This methodological advance will support more robust research on affective factors and OCC in future studies (Hua, 2026).

Context-Specific Pedagogical Implications for Chinese Application-Oriented Universities

The study's findings are expected to generate actionable, context-appropriate pedagogical implications for EFL instructors in non-immersion settings, particularly in Chinese application-oriented universities. First, findings regarding the relative impact of uncertainty vs. anxiety will inform targeted intervention design: if uncertainty is found to be a stronger predictor of OCC than anxiety, interventions should prioritize reducing unpredictability in speaking tasks (e.g., through clear task instructions, pre-task preparation time, structured role assignments) rather than focusing solely on anxiety reduction techniques (Teimouri et al., 2019).

Second, evidence for the mediating role of classroom participation will support the design of structured, low-stakes speaking activities that reduce psychological barriers while increasing participation. For example, small-group activities with assigned roles, scaffolded peer feedback, and gradual increases in task difficulty can provide safe opportunities for practice, reducing uncertainty and anxiety while building competence (Philp et al., 2013). The study's qualitative findings will identify specific strategies that are feasible within GDTC's resource constraints (e.g., no requirement for expensive technology or additional teaching hours).

Third, the study will provide evidence for institutional policy change, highlighting the need to rebalance curricula to prioritize oral communication, reduce class sizes for speaking courses, and align assessment practices with communicative learning outcomes. In particular, findings regarding the mismatch between self-reported and teacher-rated OCC will support the use of performance-based oral assessment rather than relying solely on written exams or self-evaluation (Hua, 2026).

Conclusion

Oral communication competence remains a critical but elusive learning outcome for millions of EFL learners in non-immersion contexts worldwide, with psychological barriers representing a major obstacle to progress. This paper presents a theoretically grounded, methodologically rigorous mixed-methods research protocol designed to examine how communicative uncertainty and speaking anxiety predict OCC among Chinese EFL undergraduates, with classroom participation tested as a mediating mechanism. The study's key innovation—multi-source OCC assessment combining self-report and independent teacher ratings—addresses longstanding measurement limitations in the field, while its focus on a typical Chinese application-oriented university ensures findings will be generalizable to the large population of learners in similar understudied contexts.

It is important to note the study's limitations: the single-institution design means findings will not be generalizable to elite key universities or full-immersion contexts, and the cross-sectional quantitative design limits causal inference (though the qualitative component will support contextual explanation of observed relationships). Future longitudinal research could track changes in uncertainty, anxiety, participation, and OCC over time to test causal directions, and intervention studies could evaluate the effectiveness of strategies identified in this research. Despite these limitations, the study will make important contributions to both theory and practice, supporting more effective oral English instruction that addresses both the psychological and structural barriers to OCC development in non-immersion EFL settings.

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