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# Profile-Based Differences in Anxiety Reduction Strategy Use and Speaking Anxiety Changes in University English Preparatory Classes

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## Abstract

This study examined profile-based differences in strategy use and associated changes in speaking anxiety among A2 and B1 university preparatory students and how learner profiles moderate their efficacy. Following the explicit instruction of anxiety management strategies of preparation, relaxation, positive thinking, task-focused strategies, as well as peer support, a pre-test–post-test design was employed to examine changes in speaking anxiety. The results revealed a significant reduction in speaking anxiety following strategy instruction, with a moderate-to-large effect size, suggesting that speaking anxiety may be responsive to strategy use even at lower proficiency levels. A2 students benefited most from preparation strategies, while B1 students found positive thinking and task-focused strategies more useful. As personality traits were associated with differential strategy benefits, introverted students responded more to relaxation or calming strategies, whereas extroverted students benefited more from peer support. Self-confidence emerged as the strongest predictor of anxiety reduction within this sample. Within the limitations of a single-group design, the results suggest the need for profile-sensitive, proficiency-appropriate strategy instruction in university preparatory programs.

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**Keywords:** Foreign language anxiety (FLA); Speaking anxiety; Anxiety reduction strategies; Learner profiles; English preparatory programs.

# Üniversite İngilizce Hazırlık Sınıflarında Kaygı Azaltma Tekniklerinin Öğrenci Profillerine Göre Etkililiği

## Öz

Bu çalışma, A2 ve B1 düzeyindeki üniversite hazırlık öğrencilerinin kaygı azaltma stratejilerini kullanımlarındaki profile dayalı farklılıkları, strateji öğretimi sonrasında konuşma kaygısında meydana gelen değişimleri ve öğrenci profillerinin bu stratejilerin etkililiği üzerindeki rolünü incelemiştir. Hazırlık, gevşeme, olumlu düşünme, görev odaklı stratejiler ve akran desteği gibi kaygı yönetimi stratejilerinin açık öğretimini takiben, konuşma kaygısındaki değişimi gözlemlemek amacıyla ön test–son test deseninden yararlanılmıştır. Bulgular, strateji öğretiminin ardından konuşma kaygısında orta ile yüksek düzey arasında değişen bir etki büyüklüğüyle anlamlı bir azalma yaşandığını ortaya koymuştur. Bu durum, kaygının düşük yeterlik düzeylerinde dahi kontrol altına alınabilecek duyuşsal bir olgu olduğunu ortaya koymaktadır. A2 düzeyindeki öğrenciler en çok hazırlık stratejilerinden yararlanırken, B1 düzeyindeki öğrenciler olumlu düşünme ve görev odaklı stratejileri daha faydalı bulmuştur. Kişilik özelliklerinin strateji yararlarındaki bireysel farklılıklarla ilişkili olduğu görülmüş; örneğin içe dönük öğrenciler gevşeme ve sakinleşme stratejilerine daha olumlu tepki verirken, dışa dönük öğrenciler akran desteğinden daha fazla yarar sağlamıştır. Bu örneklem kapsamında kaygı azalmasının en güçlü yordayıcısının özgüven olduğu belirlenmiştir. Tek gruplu desen sınırlılıkları çerçevesinde bulgular, üniversite hazırlık programlarında öğrenen profiline duyarlı ve yeterlik düzeyine uygun strateji öğretimine duyulan ihtiyaca işaret etmektedir.

**Anahtar Kelimeler:** Yabancı dil kaygısı; Konuşma kaygısı; Kaygı azaltma stratejileri; Öğrenci profilleri; İngilizce hazırlık programları.

## Introduction

Foreign language anxiety (FLA) has long been recognized as a significant affective variable in second language acquisition (Horwitz et al., 1986). Among its dimensions, speaking anxiety is widely considered the most debilitating, as it directly influences learners' oral performance, willingness to communicate, and academic achievement (Liu and Jackson, 2008; Woodrow,

2006). This issue becomes particularly salient in university English preparatory programs, where students are expected to develop functional communicative competence within a limited timeframe. The high-stakes nature of these programs may intensify learners' anxiety and potentially hinder their academic progression and communicative development.

FLA has been conceptualized as a situation-specific form of anxiety consisting of communication apprehension, fear of negative evaluation, and test anxiety (Horwitz et al., 1986). These components are obvious in speaking tasks, which require real-time language production and expose learners to immediate evaluation. Empirical research across different educational and cultural contexts has consistently shown that limited proficiency, fear of making mistakes, and concerns about teacher or peer judgment constitute primary sources of speaking anxiety (Akkakoson, 2016; Elaldı, 2016; Tien, 2018). Studies conducted in diverse settings, including Türkiye (Elaldı, 2016) and China (Liu and Jackson, 2008), further indicate that FLA is a widespread phenomenon rather than a context-specific issue. Moreover, recent scholarship conceptualizes foreign language anxiety as a dynamic construct that can be mitigated through pedagogical intervention rather than as a fixed learner trait (Saghafi and Elahi Shirvan, 2020; Teimouri et al., 2019).

Within the broader framework of FLA, speaking anxiety has consistently been identified as the most prominent and disruptive dimension (Woodrow, 2006). Speaking tasks involve simultaneous cognitive processing, linguistic formulation, and performance under time pressure. The immediacy of evaluation can intensify learners' fear of making mistakes and receiving negative judgments. O'Hair et al. (2007) categorize speaking-related anxiety into preparation, performance, and post-performance stages, suggesting that anxiety may emerge before, during, and after oral tasks. Research conducted in both educational and professional contexts supports this view. For instance, Akkakoson (2016) found moderate levels of speaking anxiety among Thai university students, primarily associated with limited vocabulary, test anxiety, and fear of negative evaluation. Similar findings have been reported among Taiwanese undergraduates (Tien, 2018) and in workplace contexts (Sonniyom, 2021), indicating that speaking anxiety is influenced by both contextual and individual factors.

Given the prevalence of speaking anxiety, considerable attention has been devoted to identifying coping strategies. Kondo and Yang (2004)

proposed five main categories: preparation, relaxation, positive thinking, peer support, and resignation. Preparation refers to rehearsal and advance planning; relaxation involves regulating physiological responses; positive thinking includes encouraging self-talk; peer support entails seeking reassurance from classmates; and resignation reflects avoidance or passive acceptance. Later research has largely confirmed the effectiveness of the first four strategies while characterizing resignation as less adaptive (Diana et al., 2024; Fujii, 2017; Suratin and Sribayak, 2025). Although task-focused strategies were not originally delineated as a distinct category by Kondo and Yang (2004), subsequent research on attentional control and metacognitive regulation in L2 speaking contexts has identified task engagement as a functionally independent coping mechanism (Derakshan and Eysenck, 2009; Oxford, 2017). Accordingly, this category was incorporated into the present instrument to capture learners' tendency to redirect attention toward task demands rather than anxiety-related cognitions. Preparation strategies have been found particularly helpful for lower-proficiency learners by increasing perceived readiness and confidence, whereas relaxation techniques alleviate physiological symptoms of anxiety. Positive thinking and task-focused strategies are associated with greater resilience and fluency, especially among more proficient learners, while peer support contributes to confidence through collaborative interaction.

Despite these contributions, there are still important gaps. First, anxiety-reduction strategies are frequently treated as universally effective, with insufficient attention to individual learner differences. However, variables such as proficiency level, personality traits, self-confidence, gender, and prior language learning experience may influence not only the intensity of speaking anxiety but also the relative effectiveness of specific coping strategies. For example, introverted learners may benefit more from relaxation techniques, whereas extroverted learners may derive greater advantage from peer support. Similarly, lower-proficiency learners may rely more heavily on preparation strategies, while more proficient learners may find positive thinking patterns more facilitative. Although these assumptions are theoretically plausible, empirical evidence examining profile-based differences in strategy effectiveness remains limited.

Second, relatively few studies have explicitly focused on university English preparatory programs. Much of the existing research has been

conducted in secondary school or corporate training contexts (Akkakoson, 2016; Suratin and Sribayak, 2025). Preparatory programs represent a distinct and high-stakes educational setting in which students' progression to departmental studies often depends on achieving required proficiency levels. This context may heighten speaking anxiety and necessitate more targeted, profile-sensitive strategy instruction.

In addition to proficiency and personality, other learner variables may shape anxiety experiences and coping preferences. Tridinanti (2018) demonstrated that self-confidence is a stronger predictor of speaking performance than anxiety itself. Findings regarding gender are mixed; Elaldı (2016) reported higher anxiety levels among male students, whereas Tien (2018) found higher anxiety among female students. Personality traits such as introversion and extraversion have also been associated with differences in discomfort during oral tasks. Furthermore, learners with lower proficiency often experience anxiety related to vocabulary, grammar, and pronunciation. In contrast, more advanced learners tend to rely on metacognitive strategies, such as positive thinking and task-focused strategies. Prior international learning experience may contribute to confidence and strategic flexibility (Liu and Jackson, 2008). Collectively, these findings suggest that the effectiveness of anxiety-reduction strategies may vary across learner profiles, yet systematic empirical investigation of these variations remains scarce, particularly in university preparatory contexts.

Addressing these gaps is important both theoretically and pedagogically. A profile-sensitive perspective contributes to a more nuanced understanding of affective variables in second language acquisition. Pedagogically, it enables instructors to implement differentiated, evidence-based support tailored to diverse learner characteristics.

Accordingly, the present study aims to examine the use of anxiety-reduction strategies and associated changes in speaking anxiety among A2 and B1 university English preparatory students, and to investigate how learner profiles shape differential strategy benefits. In line with this aim, the study seeks to answer the following research questions:

1. Which anxiety reduction techniques are most commonly employed by university English preparatory class students?
2. To what extent do these techniques reduce students' speaking anxiety?

3. How does the effectiveness of anxiety reduction techniques vary according to student profiles (proficiency level, personality type, self-confidence, gender, and prior language learning experience)?

## Methodology

This study employed an explanatory sequential mixed-methods design (Creswell and Plano Clark, 2007), in which quantitative data were collected and analyzed first, followed by qualitative data to further explain and elaborate on the quantitative findings. The quantitative phase aimed to identify patterns in the use and effectiveness of anxiety-reduction strategies across different learner profiles. The subsequent qualitative phase sought to deepen understanding of learners' experiences and perceptions regarding these strategies. The integration of quantitative and qualitative data enabled methodological triangulation and strengthened the validity and interpretive depth of the findings (Mathison, 1988).

### Participants

The participants consisted of 167 students enrolled in English preparatory classes at a large public university. Completion of the preparatory program was mandatory prior to beginning undergraduate studies, and the participants represented a range of academic disciplines. To account for variation in learner characteristics, participants were categorized according to proficiency level (A2–B1, determined through CEFR-aligned institutional placement tests), personality traits (introversion–extraversion), academic self-confidence, gender, and prior language-learning experience (e.g., study abroad or international schooling). Participation in the study was voluntary. Informed consent was obtained from all participants, and anonymity was ensured through the use of pseudonyms.

### Data Collection Tools

Multiple instruments were employed to collect data. Speaking-related anxiety was measured using an adapted version of the Foreign Language Classroom Anxiety Scale (FLCAS), which was administered both as a pre-test and a post-test. Anxiety-reduction strategies were assessed through a questionnaire adapted from Kondo and Yang (2004). This instrument measured both the frequency of strategy use and perceived effectiveness across five categories: preparation, relaxation, positive thinking, peer support, and task-focused strategies. Responses were recorded using Likert-scale items.

Learner profile variables were measured using a shortened version of the Big Five Inventory focused on the extraversion dimension, as well as a validated academic self-confidence scale. The extraversion dimension was selected because it has been consistently linked to differences in oral communication willingness, peer interaction preferences, and classroom participation behavior in L2 contexts (Dewaele and Furnham, 1999; MacIntyre and Charos, 1996). While neuroticism is also associated with anxiety, it was not included as a separate variable in order to maintain analytical focus; its potential influence is acknowledged as a limitation of the present study. Qualitative data were gathered through semi-structured interviews conducted with 20 volunteer participants and through reflective diaries kept by a subset of 20 students over four weeks.

Regarding psychometric properties, the adapted FLCAS demonstrated acceptable internal consistency in the present sample ($\alpha = .89$ at pre-test, $\alpha = .91$ at post-test). The Anxiety Reduction Techniques Questionnaire yielded reliability coefficients ranging from .78 to .84 across the five strategy subscales. The academic self-confidence scale demonstrated strong internal consistency ($\alpha = .86$). The extraversion subscale of the Big Five Inventory returned a Cronbach's alpha of .77, which falls within an acceptable range for subscale-level measurement. All scales were translated into Turkish by two bilingual experts and back-translated into English to verify conceptual equivalence. Discrepancies were resolved through discussion until consensus was reached.

**Data Collection and Analysis**

Data collection was carried out in two sequential phases corresponding to the mixed-methods design. During the quantitative phase, participants first completed the FLCAS as a pre-test measure of speaking anxiety. Over six weeks, students engaged in structured speaking tasks during which they were explicitly introduced to and practiced various anxiety-reduction strategies. At the conclusion of this intervention period, the FLCAS was administered again as a post-test. In addition, participants completed the Anxiety Reduction Techniques Questionnaire and a demographic survey capturing learner profile variables. In the qualitative phase, interview participants were selected using maximum variation sampling to ensure representation across different learner profiles, including proficiency level, personality type, and self-confidence levels. Semi-structured interviews lasting approximately 15–20 minutes were

conducted. Reflective diaries were collected from volunteer participants to capture ongoing experiences with strategy use.

Quantitative data were analyzed using descriptive and inferential statistical procedures. Descriptive statistics were calculated to identify the most frequently used anxiety-reduction strategies. Paired-samples t-tests were conducted to compare pre-test and post-test anxiety levels. ANOVA analyses were employed to examine differences in strategy effectiveness across learner profiles. To determine the predictive contribution of learner variables, multiple regression analyses were conducted to examine the effects of proficiency level, personality, and self-confidence on anxiety reduction.

Qualitative data obtained from interviews and reflective diaries were analyzed thematically following the approach outlined by Braun and Clarke (2006). An initial coding process was conducted to identify patterns related to learners' perceptions of strategy effectiveness. Codes were then organized into broader themes. Comparisons were made across learner profiles to identify areas of convergence and divergence in reported experiences. Throughout the interpretation phase, quantitative and qualitative findings were integrated. Quantitative results provided evidence of patterns in strategy use and effectiveness, whereas qualitative findings offered explanatory insights into how and why learners experienced specific strategies as helpful, as well as which strategies they preferred.

Ethical approval for the study was obtained from the university's research ethics committee. Participants were informed about the purpose of the study and were free to withdraw at any time without penalty. All collected data were anonymized and securely stored to ensure confidentiality.

## Results

In the 2024-2025 academic year, data were collected from 167 students enrolled in university English preparatory classes. After removing incomplete responses (n = 15), the final sample consisted of 152 students (89 females, 63 males), aged 18 to 22 (M = 19.3, SD = 1.1). According to the placement tests aligned with the CEFR, 68 students (44.7%) were at the A2 level and 84 (55.3%) at the B1 level.

On the extraversion scale, using a median split, 71 students (46.7%) were rated introverted while 81 (53.3%) were extroverted. Scores on academic self-confidence ranged from 1.8 to 4.9. Of 152 students, 52 (34.2%)

reported prior experience with international language learning before studying this course.

### Use of Anxiety Reduction Strategies (RQ1)

Descriptive statistics indicated clear differences in the frequency of strategy use.

**Table 1.** Frequency and Distribution of Anxiety Reduction Strategy Use

| Strategy Category | M | SD | Range | % Regular Use (≥4) | Skewness |
|---|---|---|---|---|---|
| Preparation | 3.89 | 0.74 | 1.8–5.0 | 78.3% (n=119) | −0.82 |
| Peer Support | 3.65 | 0.81 | 1.2–5.0 | 68.4% (n=104) | −0.56 |
| Task-Focused | 3.42 | 0.88 | 1.0–5.0 | 54.6% (n=83) | −0.31 |
| Relaxation | 3.21 | 0.92 | 1.0–5.0 | 41.4% (n=63) | −0.18 |
| Positive Thinking | 3.17 | 0.95 | 1.0–5.0 | 38.8% (n=59) | −0.12 |

*Note. Scale: 1 = Never, 5 = Always. Regular use is defined as a mean score ≥ 4.*

Preparation strategies were the most frequently employed (M = 3.89, SD = 0.74), followed by peer support (M = 3.65, SD = 0.81). Task-focused strategies were used moderately (M = 3.42, SD = 0.88), while relaxation (M = 3.21, SD = 0.92) and positive thinking (M = 3.17, SD = 0.95) were used less frequently.

A repeated-measures ANOVA revealed significant differences in strategy use, $F(3.68, 555.48) = 24.17$, $p < .001$, $\eta^2 = .14$. Post-hoc comparisons confirmed that preparation was used significantly more often than all other strategies, and that peer support was used more frequently than relaxation and positive thinking.

### Overall Effectiveness of Anxiety Reduction Strategies (RQ2)

Speaking anxiety, measured via the adapted FLCAS, showed a significant reduction from pre-test (M = 3.41, SD = 0.68) to post-test (M = 2.97, SD = 0.71), $t(151) = 6.24$, $p < .001$, with a moderate-to-large effect size (d = 0.63). Overall, 83.6% of students showed reduced anxiety.

Perceived effectiveness ratings are presented in Table 2. Preparation strategies were most strongly associated with reductions in perceived anxiety (M = 4.12, SD = 0.69), followed by peer support (M = 3.87, SD = 0.78). Positive thinking (M = 3.54, SD = 0.89), task-focused strategies (M = 3.45, SD = 0.85), and relaxation techniques (M = 3.38, SD = 0.94) received moderate ratings.

**Table 2.** Perceived Effectiveness Ratings of Anxiety Reduction Strategies

| Strategy Category | M | SD | Range | % Effective (≥4) | Median | IQR |
|---|---|---|---|---|---|---|
| Preparation | 4.12 | 0.69 | 2.0–5.0 | 81.6% (n=124) | 4.0 | 1.0 |
| Peer Support | 3.87 | 0.78 | 1.5–5.0 | 70.4% (n=107) | 4.0 | 1.0 |
| Positive Thinking | 3.54 | 0.89 | 1.0–5.0 | 58.6% (n=89) | 4.0 | 1.5 |
| Task-Focused | 3.45 | 0.85 | 1.0–5.0 | 53.3% (n=81) | 3.5 | 1.5 |
| Relaxation | 3.38 | 0.94 | 1.0–5.0 | 48.7% (n=74) | 3.5 | 1.5 |

*Note. Scale: 1 = Not at all effective, 5 = Extremely effective. IQR = Interquartile range.*

A repeated-measures ANOVA confirmed significant differences in perceived effectiveness, $F(3.82, 576.82) = 32.45$, $p < .001$, $\eta^2 = .18$. Preparation was rated as significantly more effective than all other strategies.

Frequency of strategy use was moderately correlated with perceived effectiveness across all strategy types ($r = .41–.58$, all $ps < .001$). Additionally, a broader strategy repertoire was associated with greater anxiety reduction ($r = .36$, $p < .001$).

To examine whether the reduction in speaking anxiety differed as a function of strategy type, a Mixed-Design ANOVA was conducted with measurement time (pre-test vs. post-test) as the within-subjects factor and dominant strategy use (preparation, positive thinking, task-focused, peer support, relaxation) as the between-subjects factor. Dominant strategy was determined by each participant's highest-rated strategy category. The analysis revealed a significant main effect of time, $F(1, 147) = 38.64$, $p < .001$, $\eta^2 = .21$, confirming an overall reduction in speaking anxiety across all strategy groups. The main effect of strategy type was also significant, $F(4, 147) = 6.83$, $p < .001$, $\eta^2 = .16$. Critically, the Time × Strategy Type interaction was significant, $F(4, 147) = 4.29$, $p = .002$, $\eta^2 = .11$, indicating that the magnitude of anxiety reduction differed across strategy types.

**Table 3.** Mixed-Design ANOVA Results: Time × Strategy Type Interaction

| Source | F | df | p | $\eta^2$ |
|---|---|---|---|---|
| Time (Within) | 38.64 | 1.147 | <.001 | .21 |
| Strategy Type (Between) | 6.83 | 4.147 | <.001 | .16 |
| Time × Strategy Type | 4.29 | 4.147 | .002 | .11 |
| Error (Within) | — | 147 | — | — |

Post-hoc comparisons indicated that participants who predominantly used preparation strategies showed the largest reduction in anxiety ($\Delta = 0.71$,

d = 0.81), followed by those relying on peer support (Δ = 0.52, d = 0.61) and positive thinking (Δ = 0.48, d = 0.57). Relaxation (Δ = 0.31, d = 0.38) and task-focused strategies (Δ = 0.28, d = 0.34) were associated with smaller but still significant reductions. These findings suggest that while all strategy types were associated with decreased anxiety, preparation-dominant use was most strongly linked to anxiety change within this sample.

**Profile-Based Differences in Strategy Effectiveness (RQ3)**

Results revealed significant proficiency-related differences (Table 4).

**Table 4**. Strategy Effectiveness by Proficiency Level

| Strategy | A2 (n=68) | B1 (n=84) | t | p | Cohen's d |
|---|---|---|---|---|---|
| Preparation | 4.45 (0.61) | 3.88 (0.68) | 5.36 | <.001 | 0.89 |
| Positive Thinking | 3.08 (0.95) | 3.71 (0.88) | −4.23 | <.001 | 0.69 |
| Task-Focused | 3.11 (0.89) | 3.67 (0.79) | −4.11 | <.001 | 0.67 |
| Peer Support | 3.82 (0.83) | 3.91 (0.77) | −0.69 | .491 | 0.11 |
| Relaxation | 3.29 (0.96) | 3.45 (0.90) | −1.06 | .292 | 0.17 |

*Note. Values are M (SD). Higher scores indicate greater perceived effectiveness (scale 1–5). Negative t values indicate higher ratings for B1 students.*

A2 students rated preparation strategies as more effective than B1 students, whereas B1 students rated positive thinking and task-focused strategies more highly. No significant differences were found for peer support or relaxation techniques.

A two-way ANOVA indicated a significant interaction between proficiency level and preparation use, $F(1, 148) = 6.78$, $p < .01$, $\eta^2 = .04$, indicating that frequent use of preparation strategies led to greater anxiety reduction among A2 students.

**Table 5.** Strategy Effectiveness by Personality Type

| Strategy | Introverts (n=71) | Extroverts (n=81) | t | p | Cohen's d |
|---|---|---|---|---|---|
| Relaxation | 3.67 (0.84) | 2.83 (0.89) | 6.12 | <.001 | 0.98 |
| Peer Support | 3.52 (0.81) | 4.15 (0.68) | −5.26 | <.001 | 0.85 |
| Positive Thinking | 3.34 (0.90) | 3.71 (0.86) | −2.57 | <.05 | 0.42 |
| Preparation | 4.15 (0.71) | 4.09 (0.68) | 0.53 | .598 | 0.09 |
| Task-Focused | 3.37 (0.88) | 3.52 (0.83) | −1.09 | .278 | 0.18 |

*Note. Values are M (SD). Negative t-values indicate higher ratings among extroverts.*

Introverted students rated relaxation strategies as more effective, whereas extroverted students reported greater benefits from peer support.

Smaller but significant differences were observed for positive thinking, favouring extroverted learners. No personality differences were found for preparation or task-focused strategies.

Academic self-confidence was strongly related to both baseline anxiety and strategy effectiveness. Students with lower self-confidence reported significantly higher initial anxiety levels. Self-confidence correlated positively with the effectiveness of positive thinking, task-focused strategies, and peer support, but not with preparation strategies (Table 6).

**Table 6**. Correlations Between Self-Confidence and Strategy Effectiveness

| Strategy | r | p | 95% CI |
|---|---|---|---|
| Positive Thinking | .51 | <.001 | [.38, .62] |
| Task-Focused | .38 | <.001 | [.23, .51] |
| Peer Support | .31 | <.001 | [.15, .45] |
| Relaxation | .18 | .028 | [.02, .33] |
| Preparation | .12 | .147 | [−.04, .28] |

*Note. n = 152. Higher r values indicate stronger positive relationships.*

Regarding gender, no significant differences were observed in anxiety levels or strategy effectiveness (Table 7).

**Table 7**. Strategy Effectiveness by Gender

| Strategy | Male (n=63) | Female (n=89) | t | p | Cohen's d |
|---|---|---|---|---|---|
| Preparation | 4.08 (0.73) | 4.15 (0.67) | −0.61 | .545 | 0.10 |
| Peer Support | 3.82 (0.84) | 3.90 (0.74) | −0.63 | .531 | 0.10 |
| Positive Thinking | 3.48 (0.94) | 3.58 (0.86) | −0.68 | .499 | 0.11 |
| Task-Focused | 3.38 (0.91) | 3.50 (0.82) | −0.86 | .392 | 0.14 |
| Relaxation | 3.29 (0.97) | 3.44 (0.89) | −1.01 | .316 | 0.16 |

*Note. Values are M (SD). None of the differences were statistically significant.*

**Table 8**. Anxiety Levels and Strategy Use by Prior International Experience

| Variable | International (n=52) | No International (n=100) | t | p | d |
|---|---|---|---|---|---|
| Pre-test Anxiety | 3.12 (0.65) | 3.55 (0.67) | 3.87 | <.001 | 0.65 |
| Post-test Anxiety | 2.71 (0.68) | 3.11 (0.70) | 3.46 | <.001 | 0.58 |
| Anxiety Reduction | 0.41 (0.51) | 0.44 (0.60) | 0.31 | .759 | 0.05 |
| Strategy Diversity | 3.27 (1.05) | 2.44 (1.18) | 4.42 | <.001 | 0.75 |
| Task-Focused Effectiveness | 3.78 (0.76) | 3.28 (0.87) | 3.54 | <.001 | 0.62 |
| Positive Thinking Effect. | 3.82 (0.81) | 3.41 (0.94) | 2.67 | <.01 | 0.47 |

*Note. Values are M (SD). Strategy diversity = number of strategies used regularly (range 0–5).*

In contrast, students with prior international language learning experience reported lower baseline anxiety and greater strategy diversity, and rated task-focused and positive thinking strategies as more effective (Table 8).

Hierarchical multiple regression analysis (Table 9) revealed that self-confidence was the strongest predictor of anxiety reduction ($\beta = .35$, $p < .001$), followed by preparation strategy use ($\beta = .28$, $p < .01$), proficiency level ($\beta = .19$, $p < .01$), and relaxation strategy use ($\beta = .21$, $p < .01$). The final model accounted for 39% of the variance in anxiety reduction ($R^2 = .39$).

**Table 9**. Hierarchical Multiple Regression Predicting Anxiety Reduction

| Block | Predictor | B | SE | β | t | p |
|---|---|---|---|---|---|---|
| **1** | Gender (Male) | −0.02 | 0.08 | −.02 | −0.25 | .805 |
| | International Experience | 0.14 | 0.09 | .12 | 1.56 | .121 |
| | *$R^2 = .02$, $F (2, 149) = 1.23$, $p = .295$* | | | | | |
| **2** | Gender (Male) | −0.05 | 0.07 | −.04 | −0.71 | .481 |
| | International Experience | 0.08 | 0.08 | .07 | 1.00 | .319 |
| | Proficiency (B1) | 0.17 | 0.05 | .24 | 3.40 | <.001 |
| | Extraversion | 0.06 | 0.04 | .10 | 1.50 | .136 |
| | Self-Confidence | 0.29 | 0.06 | .38 | 4.83 | <.001 |
| | *$\Delta R^2 = .24$, $F (3, 146) = 15.92$, $p < .001$; Total $R^2 = .26$* | | | | | |
| **3** | Gender (Male) | −0.05 | 0.06 | −.04 | −0.83 | .409 |
| | International Experience | 0.04 | 0.07 | .03 | 0.57 | .570 |
| | Proficiency (B1) | 0.14 | 0.05 | .19 | 2.80 | <.01 |
| | Extraversion | 0.04 | 0.04 | .07 | 1.00 | .319 |
| | Self-Confidence | 0.27 | 0.06 | .35 | 4.50 | <.001 |
| | Preparation Use | 0.21 | 0.06 | .28 | 3.50 | <.01 |
| | Peer Support Use | 0.11 | 0.06 | .15 | 1.83 | .052 |
| | Positive Thinking Use | 0.05 | 0.05 | .08 | 1.00 | .287 |
| | Task-Focused Use | 0.06 | 0.05 | .09 | 1.20 | .218 |
| | Relaxation Use | 0.13 | 0.05 | .21 | 2.60 | <.01 |

*Note. β = standardized regression coefficient. Among statistically significant predictors in the final block, self-confidence returned the largest standardized coefficient (β = .35), followed by preparation strategy use (β = .28), relaxation strategy use (β = .21), and proficiency level (β = .19).*

The final model accounting for 39% of the variance in anxiety reduction indicates a moderately strong predictive model, suggesting that proficiency, personality, self-confidence, and strategy use collectively explain a substantial portion of individual differences in anxiety outcomes. Nevertheless, the remaining 61% of unexplained variance points to the

influence of additional factors not captured in the present study, such as classroom dynamics, teacher behavior, and task-specific variables.

**Summary of Key Findings**

1. Preparation strategies were the most frequently used and most strongly associated with anxiety reductions, particularly for A2 learners.
2. Speaking anxiety decreased significantly following strategy instruction within this sample ($d = 0.63$), though the absence of a control group precludes causal attribution.
3. Perceived strategy effectiveness varied by learner profile, with proficiency, personality type, and self-confidence showing the most consistent associations.
4. Self-confidence emerged as the strongest predictor of anxiety reduction.
5. Gender did not significantly influence anxiety or strategy effectiveness.
6. Learners with prior international experience reported lower anxiety and greater strategic flexibility.

**Qualitative Findings**

To elaborate on the quantitative patterns, thematic analysis of semi-structured interviews and reflective diaries revealed four overarching themes related to learners' experiences with anxiety reduction strategies. Representative excerpts are presented below.

Theme 1: Preparation as Cognitive Control (predominantly A2 learners)

A2 learners consistently described preparation as a means of managing uncertainty before speaking tasks. Knowing what to say in advance reduced the cognitive load associated with real-time language production and provided a sense of control over the interaction.

"When I prepare my sentences before class, I feel less scared. I know what I will say so I don't freeze." (Participant 7, A2, introverted)

"I write down key words the night before. It helps me feel ready even if my English is not perfect." (Participant 14, A2, extroverted)

Theme 2: Peer Interaction as a Confidence Buffer (predominantly

extroverted learners)

Extroverted learners frequently reported that peer support reduced the evaluative threat associated with speaking tasks. Practicing with classmates was perceived as a low-stakes environment that gradually built confidence for more formal speaking contexts.

"Talking with my friends first makes it easier. They don't judge me like the teacher does." (Participant 23, B1, extroverted)

"When my classmate encourages me before I speak, I feel stronger. I think I can do it." (Participant 31, B1, extroverted)

Theme 3: Emotional Regulation Through Relaxation (predominantly introverted learners)

Introverted learners more frequently described physical and cognitive relaxation strategies as effective in managing pre-task anxiety. Deep breathing and mental distancing from evaluative pressure were recurring strategies in this group's diary entries.

"Before I speak I close my eyes and breathe. It helps me calm my mind." (Participant 9, A2, introverted)

"I tell myself it is just practice. When I think like this, my heart stops beating so fast." (Participant 19, B1, introverted)

Theme 4: Strategy Mismatch and Perceived Ineffectiveness

Several learners, particularly those with lower self-confidence, reported frustration when assigned strategies did not align with their natural coping tendencies. This mismatch was associated with continued anxiety despite strategy use.

"The teacher said think positive but I cannot just switch my feelings. It does not work for me." (Participant 41, A2, introverted)

"Relaxation exercises feel strange in class. I feel more anxious when I try to do them in front of others." (Participant 38, B1, extroverted)

These qualitative findings converge with and extend the quantitative results. The dominance of preparation among A2 learners and peer support among extroverted students aligns with the profile-based differences identified in the quantitative phase. Additionally, Theme 4 provides

explanatory insight into cases where strategy use did not result in meaningful anxiety reduction, suggesting that strategy-learner fit may be a relevant factor in intervention design.

## Discussion

The present study was guided by three central propositions: that explicit strategy instruction would be associated with reduced speaking anxiety (H1); that strategy effectiveness would vary as a function of learner proficiency (H2); and that personality traits would moderate the relationship between strategy use and anxiety outcomes (H3). The findings provide partial support for all three propositions, though with important qualifications discussed below.

This study examined profile-based differences in anxiety reduction strategy use and associated changes in speaking anxiety among A2 and B1 university English preparatory students, with particular emphasis on how learner profiles shape differential strategy benefits. The findings contribute to the literature on foreign language anxiety by demonstrating that speaking anxiety appears to be responsive to explicit instructional support within the constraints of a single-group design, while also being differentially influenced by individual learner characteristics.

The significant reduction in speaking anxiety observed following strategy instruction ($d = 0.63$) suggests that anxiety may not be best conceptualized as a fixed dispositional trait but rather as a malleable affective state that can be regulated through pedagogical intervention. This interpretation aligns with affective models of second language acquisition, which conceptualize anxiety as a dynamic variable interacting with cognitive processing and performance (MacIntyre, 2002). The results are consistent with earlier research demonstrating the effectiveness of coping strategies in reducing speaking anxiety (Diana et al., 2024; Suratin and Sribayak, 2025), while extending the literature by focusing specifically on lower- to intermediate-level learners within high-stakes university preparatory contexts.

The finding that more than 80% of students experienced some degree of anxiety reduction is particularly noteworthy, given that A2 and B1 learners continue to struggle with vocabulary limitations, grammatical accuracy, and pronunciation difficulties (Akkakoson, 2016; Tien, 2018). These results

suggest that emotional regulation and linguistic development do not necessarily progress at the same rate; learners may develop strategies to manage anxiety even when structural language challenges persist.

Preparation strategies emerged as both the most frequently employed and the most strongly associated with anxiety reduction among A2 learners. This pattern is further supported by qualitative findings, in which A2 learners described preparation as a means of reducing cognitive load and managing uncertainty prior to speaking tasks (see Theme 1). The substantial proficiency-related effect (d = 0.89) suggests that lower-proficiency learners rely heavily on structured rehearsal and pre-task planning to compensate for limited linguistic automaticity (Woodrow, 2006). From a cognitive perspective, preparation reduces real-time processing demands by allowing learners to pre-organize lexical and syntactic resources prior to performance.

The interaction between proficiency level and preparation use further clarifies this relationship. Frequent preparation was associated with markedly greater anxiety reduction among A2 students, whereas the effect was comparatively smaller among B1 learners. As proficiency increases, learners appear to depend less on extensive rehearsal and demonstrate greater capacity to manage spontaneous speech production. Nevertheless, excessive reliance on preparation may restrict flexibility in authentic communication. Therefore, as lower-level learners' proficiency and confidence develop, instruction should gradually incorporate opportunities for more spontaneous interaction alongside structured preparation.

The differential effectiveness of strategies across proficiency levels emphasizes the importance of developmental appropriateness. While preparation strategies were most beneficial for A2 learners, positive thinking and task-focused strategies proved more effective for B1 learners. This pattern is compatible with skill-acquisition theory (DeKeyser, 2007), which posits that increasing proceduralizing frees cognitive resources for metacognitive regulation. Once learners possess a foundational level of linguistic competence, strategies such as positive thinking and task focus become more functionally meaningful. It cannot be assumed that strategies effective for intermediate learners will produce equivalent benefits for beginners lacking sufficient linguistic resources.

Personality also played a significant role in shaping the effectiveness of the strategy. Introverted learners benefited more from relaxation techniques,

whereas extroverted learners benefited more from peer support. These patterns are echoed in the qualitative data, where introverted learners reported using breathing and mental distancing techniques to manage pre-task anxiety (Theme 3), while extroverted learners described peer interaction as a confidence-building mechanism that reduced evaluative threat (Theme 2). The large effect sizes observed suggest that personality may be as influential as proficiency in determining effective responses to speaking tasks. The findings indicate that introverted learners tend to experience anxiety in more somatic forms and therefore benefit from physiological self-regulation. In contrast, extroverted learners gain confidence through social interaction and collaborative rehearsal. These results are consistent with personality theories emphasizing stable individual differences in stimulation preferences and coping styles. Notably, the personality effects remained stable across proficiency levels, suggesting that temperamental tendencies persist in language-learning contexts. An examination of score distributions revealed no extreme outliers in relaxation scores across personality types, indicating that the observed large effect sizes are unlikely to be statistical artifacts.

Self-confidence emerged as the strongest predictor of anxiety reduction, highlighting the central role of learners' self-belief. This finding gains additional explanatory depth from Theme 4, in which learners with lower self-confidence reported frustration and continued anxiety when assigned strategies did not align with their natural coping tendencies, suggesting that strategy-learner fit may mediate the relationship between confidence and anxiety outcomes. This finding supports social-cognitive theory (Bandura, 1997), which posits that self-efficacy influences emotional regulation and task engagement. Notably, confidence-based strategies were effective primarily for learners who already reported higher levels of self-confidence, whereas preparation strategies were effective regardless of confidence level. This suggests that preparation may serve as an accessible entry point for managing anxiety among learners with lower self-confidence. At the same time, confidence-oriented strategies may require an existing baseline of self-efficacy to be fully effective.

Gender did not significantly influence anxiety levels or strategy effectiveness, suggesting that speaking anxiety in this context may be more closely associated with linguistic and psychological variables than with gender-related differences. In contrast, students with prior international

language-learning experience reported lower baseline anxiety and greater strategic flexibility. However, when controlling other variables, international experience did not independently predict anxiety reduction. This suggests that the advantages of international exposure may run indirectly, through enhanced self-confidence or metacognitive awareness, rather than through direct reductions in anxiety.

From a theoretical perspective, the findings offer qualified support for the model of foreign language anxiety proposed by Horwitz et al. (1986), particularly regarding the centrality of communication apprehension and fear of negative evaluation in speaking contexts. At the same time, the results indicate that anxiety is better understood as an outcome of interactions between task demands and individual learner characteristics. This interpretation aligns with person–situation interaction models (Mischel and Shoda, 1995), which emphasize the dynamic interaction between dispositional traits and contextual variables.

Pedagogically, the findings reveal the necessity of profile-sensitive anxiety management in university preparatory programs. Instructors should prioritize preparation strategies for lower-proficiency and lower-confidence learners while gradually integrating spontaneous communicative tasks. Strategy instruction should also be differentiated according to personality traits, with relaxation techniques emphasized for introverted learners and collaborative rehearsal encouraged for extroverted learners. Additionally, self-confidence can be fostered through scaffolded speaking activities and constructive feedback. Rather than adopting a one-size-fits-all approach, educators should provide a repertoire of strategies and guide learners in identifying those most compatible with their individual profiles.

There are several limitations in this study. The intervention period was relatively short, and data relied primarily on self-reported measures. The sample consisted of A2 and B1 learners within a relatively homogeneous cultural context. Furthermore, some effect sizes were large and necessitate replication with larger and more diverse samples. Future research should adopt longitudinal and experimental designs to examine the sustained impact of strategy instruction. The inclusion of behavioral or physiological measures of anxiety would further strengthen validity. Future studies should also explore higher proficiency levels and diverse educational settings to enhance generalizability. The absence of a control group represents a notable

methodological constraint; the observed reduction in speaking anxiety cannot be causally attributed to strategy instruction alone, as confounding variables such as general course exposure, teacher effects, and maturation cannot be ruled out. Additionally, the present study relied on the extraversion dimension of the Big Five Inventory to represent personality, excluding neuroticism, which has documented associations with anxiety in the L2 literature. Future studies should incorporate broader personality measurement to more fully capture the role of dispositional variables in strategy effectiveness.

## Conclusion

The findings of this study demonstrate that speaking anxiety among A2 and B1 university English preparatory students was associated with measurable reductions in speaking anxiety levels following strategy instruction. In addition, the results indicate that the effectiveness of anxiety-reduction strategies is not uniform across learners but varies by individual profile. In particular, preparation strategies appear to be especially beneficial for lower-proficiency students, while personality traits and self-confidence play a central role in determining which strategies are most strongly associated with anxiety reductions for different learners.

These findings emphasize the importance of providing structured and profile-sensitive pedagogical support in university preparatory programs. Rather than adopting a one-size-fits-all approach to anxiety management, instructors should consider learners' proficiency levels, personality characteristics, and confidence levels when integrating strategy instruction into speaking courses. Overall, the study highlights the need for differentiated, evidence-based practices to address foreign-language speaking anxiety in high-stakes preparatory contexts.

## References

Akkakoson, S. (2016). Speaking anxiety in English conversation classrooms among Thai students. *Malaysian Journal of Learning and Instruction*, *13*(1), 63–82. https://doi.org/10.32890/mjli2016.13.1.4

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman and Company.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Creswell, J. W., and Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Sage Publications.

DeKeyser, R. (2007). *Practice in a second language: Perspectives from applied*

*linguistics and cognitive psychology*. Cambridge University Press.

Derakshan, N., and Eysenck, M. W. (2009). Anxiety, processing efficiency, and cognitive performance. *European Psychologist, 14*(2), 168–176. https://doi.org/10.1027/1016-9040.14.2.168

Dewaele, J.-M. and Furnham, A. (1999). Extraversion: The unloved variable in applied linguistic research. *Language Learning, 49*(3), 509–544. https://doi.org/10.1111/0023-8333.00098

Diana, M., Renandya, W., and Dahliana, S. (2024). Researching factors and coping strategies of EFL students' speaking anxiety. *Englisia: Journal of Language, Education and Humanities, 12*(1), 250–271 https://doi.org/10.22373/ej.v12i1.22733

Elaldı, S. (2016). Foreign language anxiety of students studying English language and literature: A sample from Turkey. *Educational Research and Reviews*, *11*(6), 219–228. https://doi.org/10.5897/ERR2015.2507

Fujii, S. (2017). *An investigation into the effectiveness of strategies for reducing student language anxiety* [Doctoral dissertation, Hokkaido University]. Hokkaido University Collection of Scholarly and Academic Papers. http://hdl.handle.net/2115/67402

Horwitz, E. K., Horwitz, M. B., and Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, *70*(2), 125–132. https://doi.org/10.1111/j.1540-4781.1986.tb05256.x

Kondo, D. S., and Yang, Y. L. (2004). Strategies for coping with language anxiety: The case of students of English in Japan. *ELT Journal*, *58*(3), 258–265. https://doi.org/10.1093/elt/58.3.258

Liu, M., and Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, *92*(1), 71–86. https://doi.org/10.1111/j.1540-4781.2008.00687.x

MacIntyre, P. D. (2002). Motivation, anxiety and emotion in second language acquisition. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 45–68). John Benjamins Publishing Company. https://doi.org/10.1075/lllt.2.05mac

MacIntyre, P. D., and Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology, 15*(1), 3–26. https://doi.org/10.1177/0261927X960151001

Mathison, S. (1988). Why triangulate? *Educational Researcher*, *17*(2), 13–17.

Mischel, W., and Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*(2), 246–268. https://doi.org/10.1037/0033-295X.102.2.246

O'Hair, D., Rubenstein, H., and Stewart, R. (2007). *A pocket guide to public speaking* (2nd ed.). Bedford/St. Martin's.

Oxford, R. L. (2017). *Teaching and researching language learning strategies: Self-regulation in context* (2nd ed.). Routledge.

Saghafi, K., and Elahi Shirvan, M. (2020). Rapid changes in foreign language learning anxiety caused by a multiplicity of topics: An idiodynamic approach. *Journal of Language and Education, 6*(1), 83–102.

https://doi.org/10.17323/jle.2020.9684

Sonniyom, V. (2021). *A study of anxiety in English speaking among Thai financial workers of a commercial bank* [Master's independent study, Thammasat University]. Thammasat University Digital Collections. https://ethesisarchive.library.tu.ac.th/thesis/2021/TU_2021_6321040302_15908_19645.pdf

Suratin, N., and Sribayak, V. (2025). Factors contributing to speaking anxiety and anxiety reduction techniques in Thai adult EFL learners. *LEARN Journal: Language Education and Acquisition Research Network, 18*(1), 294–319. https://doi.org/10.70730/MYTS3987

Teimouri, Y., Goetze, J., and Plonsky, L. (2019). Second language anxiety and achievement: A Meta-analysis. *Studies in Second Language Acquisition*, *41*(2), 363–387. https://doi.org/10.1017/s0272263118000311

Tien, C. Y. (2018). English-speaking anxiety in EFL university classrooms in Taiwan. *European Journal of English Language Teaching*, *4*(2), 21–34. https://doi.org/10.5281/zenodo.1473161

Tridinanti, G. (2018). The correlation between speaking anxiety, self-confidence, and speaking achievement of undergraduate EFL students of a private university in Palembang. *International Journal of Education and Literacy Studies*, *6*(4), 35-39. https://doi.org/10.7575/aiac.ijels.v.6n.4p.35

Woodrow, L. (2006). Anxiety and speaking English as a second language. *RELC Journal*, *37*(3), 308–328. https://doi.org/10.1177/0033688206071315