

Enhancing The PSCAS: New Insights into Public Speaking Anxiety Among ESL Undergraduates

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Abstract

This study examines public speaking anxiety among undergraduate ESL students using the Public Speaking Class Anxiety Scale (PSCAS). A quantitative approach was employed, with data collected from 65 participants using the 17-item PSCAS questionnaire. Findings reveal that Fear of Negative Evaluation ($M = 3.17$) and Communication Apprehension ($M = 3.06$) are the most significant anxiety factors, followed by Comfort in Speaking English ($M = 3.02$) and Test Anxiety ($M = 2.98$). These results highlight the challenges students face in verbal communication, particularly concerns about social evaluation. Additionally, thematic analysis uncovered anxiety triggers not explicitly addressed in the original PSCAS, underscoring limitations in its ability to capture impromptu speaking anxiety and interactions with fluent speakers. To address these gaps, the study expands the PSCAS to improve its accuracy in assessing speaking anxiety. The refined scale enhances validity, offering a more comprehensive understanding of students' communication challenges. By aligning self-reported experiences with assessment tools, this study emphasizes the need for targeted interventions, including ungraded speaking activities and structured real-world communication exposure. Future research should further validate the revised PSCAS in diverse ESL contexts to enhance its applicability.

Keywords: *disfluency, fluenceme, hesitation, on-screen communication*

Introduction

Public speaking anxiety (PSA) or glossophobia is a common challenge among tertiary students, particularly during classroom presentations (Balakrishnan et al., 2022). Its severity varies, from mild nervousness to panic attacks (Li, 2020). Public speaking is a skill that can be developed and perfected. While some individuals are comfortable speaking and communicating in front of an audience, for others, it can be a source of anxiety. While some individuals are naturally confident speakers, others struggle with symptoms such as stammering, sweating, and dizziness (Lall et al., 2018). Introverted or neurotic individuals are also more prone to PSA (Li, 2020).

University students experience PSA at significantly higher rates than the general population (Fong et al., 2024). Studies have shown that 88.4% of Indonesian senior university students reported moderate to high speaking anxiety (Fathikasari et al., 2022), while 54.67% of Malaysian undergraduates experienced medium

anxiety levels (Nasir & Isa, 2021). In Finland, 57% of education students reported high speaking anxiety (Gallego et al., 2021).

Public speaking requires more than verbal proficiency; it also depends on non-verbal skills such as controlled breathing and body language (Fong et al., 2024). Since not all students are naturally skilled speakers, structured practice is essential for confidence building and career preparation. PSA is often linked to limited English proficiency, vocabulary constraints, and fear of making grammatical mistakes, which hinder students from engaging in academic discussions (Damayanti & Listyani, 2020; Rajitha & Alamelu, 2020; Sadighi & Dastpak, 2017; Mohd Nor et al., 2019).

Hence, the current study is conducted to address the following research questions:

RO1: What are the levels of public speaking anxiety among undergraduate ESL students in classroom settings, based on PSCAS mean scores for the four factors?

RO2: How do undergraduate ESL students describe their public speaking anxiety, and to what extent do their experiences align with the PSCAS framework?

RO3: How can the PSCAS be refined to better capture students' speaking anxiety in academic settings?

By adopting the PSCAS framework, this study aims to assess PSA levels, explore students' experiences, and refine the scale for better representation of speaking anxiety in academic contexts.

Literature Review

The Prevalence and Determinants of Public Speaking Anxiety

Public speaking anxiety (PSA) is a social anxiety disorder that affects individuals who experience distress when speaking before an audience (Gallego et al., 2022). It is particularly common among tertiary students, especially during classroom presentations (Balakrishnan et al., 2022). Approximately one in five people experience PSA, making it one of the most prevalent forms of anxiety (Bartholomay & Houlihan, 2016). Symptoms such as sweating, stammering, and light-headedness arise from overanalysing audience perceptions, leading to a loss of confidence (Lall et al., 2020).

A major contributor to PSA among ESL learners is limited English proficiency. Students often fear speaking due to weak language skills, leading to anxiety and self-doubt (Damayanti & Listyani, 2020). Inadequate proficiency further intensifies fear, as students struggle to express ideas clearly (Rajitha & Alamelu, 2020). Vocabulary limitations also create communication barriers, causing embarrassment and hesitation (Sadighi & Dastpak, 2017). Fear of making grammatical mistakes further discourages students from participating in discussions (Mohd Nor et al., 2019).

Negative feedback and peer assessment also heighten anxiety. Students worry about criticism, leading to distress and avoidance of speaking tasks (Sinaga et al., 2020). Lower proficiency exacerbates this fear, as students struggle to construct grammatically correct sentences under pressure (Bensalem, 2023; Megawati &

Permana, 2022). Additionally, classroom activities such as oral presentations and answering questions trigger anxiety, as students fear judgment from lecturers and peers (Mulyani, 2018; Taly & Paramasivam, 2020). By understanding these factors, targeted strategies can be developed to help students manage PSA and improve their speaking confidence. Given these multiple determinants of PSA, it is crucial to explore comprehensive strategies that not only target language proficiency but also psychological and social factors influencing speaking confidence.

Approaches for Evaluating Public Speaking Anxiety

The study of speaking anxiety is well-established, with several widely used frameworks and scales to assess anxiety levels and factors that contribute to it such as Foreign Language Classroom Anxiety Scale (FLCAS) and Personal Report of Public Speaking Anxiety (PRPSA). Assessing PSA accurately is crucial for developing targeted interventions, making these tools valuable in both research and practice.

FLCAS was developed by Horwitz, Horwitz, and Cope (1986) which consisted of 33 items that address frequent anxiety related ideas, emotions, symptoms, and actions among foreign language learners (Papi & Khajavy, 2023). FLCAS is one of the commonly used frameworks to investigate language learners' speaking anxiety, as it helps to facilitate research on L2 anxiety by offering a valuable tool for researchers to conduct studies and compare findings across various contexts and groups (Papi & Khajavy, 2023). However, some studies have highlighted the shortcomings of FLCAS. For instance, Lee and Ye (2023) conducted a G theory analysis to examine the reliability of FLCAS, and it was found that when the occasion was taken into account, the reliability coefficients were significantly lower than the Cronbach's alpha values. On top of that, the reliability of one of the factors in FLCAS, which is *test anxiety*, was found to be way lower than the acceptable range of reliability (Lee & Ye, 2023). Additionally, FLCAS may not fully capture the situational and dynamic nature of PSA, particularly in relation to ESL learners who experience anxiety differently in formal and informal settings.

Meanwhile, PRPSA was developed by McCroskey (1970) and consisted of 34 items to measure public speaking anxiety, with 22 negatively formulated items and 12 positively formulated items (Mörtberg et al., 2018). PRPSA focuses on addressing public speaking anxiety within educational settings and since performance anxiety is widespread among students, the PRPSA is likely to be particularly effective in helping individuals in these contexts (Mörtberg et al., 2018). They further add that PRPSA could improve research and clinical practices by providing a reliable tool for diagnosing and treating public speaking anxiety in students. Although incorporating positive and negative items can lead to clear factor loadings and stronger internal consistency, acquiescence bias, where respondents tend to agree with statements regardless of their actual feelings, remains a potential limitation (Miller, Lovler, & McIntire, 2013 as cited in Bartholomay &

Houlihan, 2016). This highlights the need for a more refined evaluation tool that accurately captures PSA dynamics among ESL learners.

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The Public Speaking Class Anxiety Scale (PSCAS), developed by Yaikhong and Usaha (2012), has been instrumental in assessing PSA within this demographic. However, recent studies suggest the need to revisit and possibly modify the PSCAS to ensure its continued relevance and effectiveness. Despite its wide usage, PSCAS may not fully address variations in anxiety triggers across diverse student populations, particularly in ESL contexts where cultural and linguistic factors play a significant role.

The PSCAS has undergone various adaptations to better suit different cultural and educational contexts. For instance, a study by Ediwarman and Pahamzah (2023) employed a modified version of the PSCAS to assess anxiety during student presentations, highlighting the scale's versatility in different academic settings. Besides, several interventions have been explored to mitigate PSA among ESL undergraduates. Pontillas (2020) introduced "Popsispeak," an innovative approach combining popular culture and public speaking exercises, which significantly reduced anxiety levels and improved oral communication skills. However, while such interventions demonstrate promise, their long-term effectiveness and scalability remain areas for further exploration.

The integration of technology in education has opened new avenues for addressing PSA as well. Yaprak (2022) explored the use of the Canvas learning management system to reduce speaking anxiety, demonstrating that digital platforms can provide supportive environments for practice and feedback, thereby alleviating anxiety. Recent developments include free online Virtual Reality platforms designed to help individuals overcome speech anxiety by allowing users to practice public speaking in various virtual settings, from empty rooms to packed stadiums. These tools aim to make public speaking treatment more accessible and cost-effective. Despite their potential, concerns regarding accessibility, student engagement, and technological barriers must be addressed to ensure equitable benefits for all learners.

Enhancing the PSCAS and understanding the multifaceted nature of PSA among ESL undergraduates are crucial steps toward developing effective interventions. Future research should continue to refine assessment tools like the PSCAS and explore diverse strategies, including technological solutions and personalized approaches, to support students in overcoming public speaking anxiety. Further investigations should also consider the intersection of psychological, linguistic, and cultural influences on PSA, ensuring that interventions are tailored to the specific needs of ESL learners.

Methodology

This study adopted a mixed-methods design to examine public speaking anxiety levels among ESL students in classroom settings. The aim was to identify sources of anxiety and explore how students experience and describe their anxiety, using both quantitative and qualitative approaches to provide a comprehensive analysis (Dawadi et al., 2021).

The sample consisted of 65 undergraduate students (47 female, 18 male) from Universiti Teknologi MARA, aged 18–26, who participated in an English proficiency workshop. Participants were purposively selected based on their interest in improving their English-speaking skills.

Data were collected using the Public Speaking Class Anxiety Scale (PSCAS) by Yaikhong and Usaha (2012), a 17-item, 5-point Likert scale questionnaire, distributed via Google Forms at the end of the workshop on enhancing English language proficiency. To gain deeper insights, respondents were also asked to describe specific situations in which they felt anxious about speaking English through the open-ended question: "In what situations are you anxious about speaking English?"

The analysis involved several steps:

RO1: Identifying Anxiety Levels – Descriptive statistics were used to calculate mean scores for the four PSCAS factors: Fear of Negative Evaluation, Comfort in Speaking English, Test Anxiety, and Communication Apprehension.

RO2: Exploring Students' Experiences – Thematic analysis of open-ended responses identified recurring anxiety themes, illustrating how students experience and describe their anxiety.

RO3: Refining the PSCAS Framework – Qualitative themes were compared with PSCAS items to assess alignment and identify potential refinements for better capturing students' public speaking anxiety in academic settings.

By integrating both statistical data and thematic insights, the study provided a detailed exploration of the anxiety factors affecting ESL students and how these factors align with students' experiences in classroom speaking tasks.

Result and Discussions

This section presents the findings derived from the analysis of the Public Speaking Class Anxiety Scale (PSCAS) evaluation and the thematic analysis of respondents' experiences with public speaking anxiety. The results are organized around two key areas: the quantitative analysis of anxiety levels based on PSCAS scores and the thematic exploration of how students describe their anxiety, with a comparison to the PSCAS framework.

Analysis of PSCAS Scores and Anxiety Levels

This section outlines the mean scores for the four identified factors of public speaking anxiety, as measured by the PSCAS. It provides an overview of the levels of anxiety experienced by undergraduate ESL students in classroom settings, offering insights into the intensity of their fear and discomfort during speaking tasks.

Table 1: Statistics of all PSCAS factors (Ch'ng et al., 2025)

Factors	Mean	Standard Deviation
Factor 1: Fear of Negative Evaluation	3.17	1.09
Factor 2: Comfort in Speaking English	3.02	0.87
Factor 3: Test Anxiety	2.98	1.07
Factor 4: Communication Apprehension	3.06	1.08

The overall statistics for each PSCAS factor are summarised in Table 1. Factor 1, Fear of Negative Evaluation, had the highest mean score ($M = 3.17$, $SD = 1.09$), indicating it as the most prominent source of anxiety among participants. This was followed by Factor 4, Communication Apprehension, with a mean of 3.06 ($SD = 1.08$), Factor 2, Comfort in Speaking English, with a mean of 3.02 ($SD = 0.87$), and Factor 3, Test Anxiety, with a mean of 2.98 ($SD = 1.07$).

The findings highlight Fear of Negative Evaluation as the most significant contributor to anxiety, followed by Communication Apprehension. While Test Anxiety is present, its impact appears less pronounced compared to the other two factors. The variability in responses, as shown by the standard deviations, suggests differing anxiety levels across participants. These results align with existing literature on language anxiety, which often identifies fear of negative evaluation as a key factor (Toubot et al., 2018; Daud et al., 2019). McCroskey's (1977) work on communication apprehension further supports these findings, underlining its influence on learners' confidence and communication willingness. While Test Anxiety is also notable, its effect is less prominent, corroborating research by Horwitz et al. (1986) and Liu (2007), which suggests that test anxiety frequently interacts with other anxiety types.

These results directly address the study's second and third research questions, focusing on anxiety levels and the key factors contributing to students' anxiety. The variability in anxiety levels emphasizes the need for targeted interventions, especially in addressing Fear of Negative Evaluation and Communication Apprehension, alongside support for managing Test Anxiety.

Thematic Insights and Comparison with PSCAS Factors

This section presents findings from the PSCAS evaluation and thematic analysis of respondents' public speaking anxiety. The focus is on the four PSCAS factors: Fear of Negative Evaluation, Comfort in Speaking

English, Test Anxiety, and Communication Apprehension. Additionally, responses reflecting broader anxiety not captured by the PSCAS factors were classified under the theme of General Anxiety. The analysis compares these themes with the PSCAS framework to provide a comprehensive understanding of students' anxiety in classroom settings.

Table 2: Thematic Insights and Comparison with PSCAS Factors (Ch'ng et al., 2025)

PSCAS Factors	PSCAS Question Items	Theme Identified	Explanation	Respondent Evidence
Fear of Negative Evaluation	<p>6. I am afraid that other students will laugh at me while I am speaking English.</p> <p>9. I can feel my heart pounding when I am going to be called on.</p> <p>11. It embarrasses me to volunteer to go out first to speak English</p> <p>14. I feel anxious while I am waiting to speak English.</p> <p>13. Certain parts of my body feel very tense and rigid while I am speaking English.</p> <p>16. I have trouble to coordinate my movements while I am speaking English.</p>	Fear of Making Mistakes	Anxiety stemming from the fear of judgment from peers and instructors, leading to performance apprehension.	<p>"Afraid of mistakes a pronunciation"</p> <p>"Pronounce, language"</p> <p>"Pronouncing the scientific word"</p> <p>"Afraid of wrong pronouns"</p> <p>"when i don't understand the topic"</p>
		Public Speaking and Presentations	Pressure associated with formal speaking tasks, where the stakes of evaluation are perceived as high.	<p>"Speak in public"</p> <p>"Speaking in front of many people."</p> <p>"Public Speaking"</p> <p>"In formal settings, such as presentation when I have to speak in front of people."</p> <p>"When talking in front of people / class"</p> <p>"When present or speaking test"</p> <p>"Presentations & speaking test"</p>

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				<p>"Public speaking and presentation"</p> <p>"I'm anxious about speaking English when i need to present using English language"</p> <p>"When speaking in front to many of audiences"</p> <p>"Presentation "</p> <p>"When do presenting"</p> <p>"In front of many people"</p> <p>"In formal settings, such as a presentation when I have to speak in front of people."</p> <p>"When I'm speaking in a formal situation"</p> <p>"Talking formally"</p>
Comfort in Speaking English	<p>4. I feel confident while I am speaking English.</p> <p>8. I have no fear of speaking English.</p> <p>10. I feel relaxed while I am speaking English.</p> <p>12. I face the prospect of speaking English with confidence.</p>	Understanding and Elaborating Ideas	<p>Struggles with articulating complex thoughts and ideas, reflecting a lack of confidence in using English for communication.</p>	<p>"When I have to elaborate my points"</p> <p>"elaborating ideas"</p> <p>"Thinking about what idea I need to point out while having conversations"</p> <p>"explain something that i don't really know about"</p> <p>"lack of information"</p>
Test Anxiety	<p>1. I never feel quite sure of myself while I am speaking English.</p> <p>7. I get nervous when the English teacher asks me to speak English which I have prepared in advance.</p> <p>17. Even if I am very well prepared, I feel anxious about speaking English.</p>	Exams and Tests	<p>Anxiety related to the performance pressure during speaking assessments, which can negatively impact student confidence.</p>	<p>"During speaking test"</p> <p>"During examination"</p> <p>"For a speaking test especially in a group of unknown people"</p> <p>"When I sit for an exam, for example, I sit for a speaking test."</p> <p>"Tests and Exam"</p> <p>"Test I guess"</p> <p>"When present or speaking test"</p>

				<p>"Presentations & speaking test"</p> <p>"During the speaking test, when answering someone's question in English because my grammar is bad and I cannot think of a word in english."</p>
		Impromptu Speaking	<p>Anxiety experienced in unprepared speaking situations, contributing to a sense of helplessness and performance anxiety.</p>	<p>"When someone ask me the sudden question"</p> <p>"Impromptu situations, but I do try to calm myself down"</p> <p>"To think of an answer directly."</p> <p>"When trying to reply to someone who is talking to me."</p> <p>"When under too much pressure"</p> <p>"If I don't understand the question properly"</p>
Communication Apprehension	<p>2. I start to panic when I have to speak English without preparation in advance.</p> <p>3. In a speaking class, I can get so nervous I forget things I know.</p> <p>5. I get nervous and confused when I am speaking English.</p> <p>15. I dislike using my voice and body expressively while I am speaking English.</p>	Speaking with Fluent English Speakers	<p>Feelings of intimidation and reduced confidence when communicating with more proficient speakers, leading to apprehension in interactions.</p>	<p>"When talking to someone who is more fluent in English"</p> <p>"When speaking with people that are fluent in English because I am afraid that I might get judged for my English accent or pronunciation..."</p> <p>"When talking to someone"</p> <p>"When speaking with someone"</p>
		Meeting New People	<p>Anxiety during initial interactions, where fear of judgment and</p>	<p>"When I meet new people"</p> <p>"Meeting new people"</p>

			miscommunication is heightened.	
General Anxiety	N/A	General Anxiety	Broader feelings of unease that may not be specific to speaking tasks but extend to various aspects of academic life.	"Shaking" "Nothing is impossible" "Trick question"
		Other Situations	Contexts outside typical speaking situations where anxiety manifests, indicating a comprehensive understanding of anxiety triggers.	"Roleplay" "When I feel pressure to find the answer."

Factor 1: Fear of Negative Evaluation

The theme Fear of Making Mistakes emerged strongly, with participants expressing significant concern about making errors during speaking tasks, fearing negative judgement from peers and instructors. One student shared, "I always worry that if I make a mistake, my classmates will laugh at me." This aligns with existing literature, indicating that fear of negative judgement is a prevalent source of anxiety among language learners (Toubot et al., 2018; Daud et al., 2019). The categorisation of this theme under the Fear of Negative Evaluation factor is supported by studies suggesting that learners often fear being perceived as incompetent, leading to heightened anxiety.

The Public Speaking and Presentations theme also reflects the pressure participants feel during formal speaking engagements, where they perceive the stakes to be higher due to the evaluation process. As one participant noted, "I feel like I have to be perfect when presenting in front of everyone. It's terrifying." This fear of judgement can significantly impact students' performance and confidence levels, reinforcing the importance of addressing this factor in public speaking interventions. The findings from this theme support the broader literature on public speaking anxiety, which emphasises the role of perceived evaluation in intensifying anxiety (MacIntyre & Gardner, 1991).

Factor 2: Comfort in Speaking English

Participants also highlighted challenges in articulating their thoughts clearly, particularly in formal settings, which is captured in the theme Understanding and Elaborating Ideas. Many respondents noted feeling somewhat comfortable speaking English but lacked confidence when asked to express more complex ideas. One participant shared, "I can speak English, but I struggle to explain my ideas well. I often freeze during presentations." This suggests a transitional stage in language acquisition, where increased exposure and practice may gradually improve comfort levels. Liu and Huang (2011) support this observation, suggesting that familiarity and consistent practice significantly contribute to learners' comfort in using English.

Additionally, the General Anxiety theme reflects broader feelings of unease that participants experience in various speaking contexts. One student mentioned, "Sometimes, I just feel anxious about everything related to school, not just speaking." This theme indicates that the anxiety participants face is not confined solely to public speaking but extends to other academic pressures, such as exams and class participation.

Factor 3: Test Anxiety

The theme Exams and Tests highlights participants' heightened anxiety surrounding assessments, particularly formal speaking tests. The pressure associated with these assessments emerged as a key concern, with respondents noting that the conditions of a test heightened their anxiety, which in turn affected their performance and self-confidence. One student remarked, "When I have to speak for a test, I feel so much pressure that I can't think straight." This finding supports previous research indicating that test anxiety significantly impacts language learners, particularly during high-stakes assessments (Saito et al., 1999; Cheng et al., 2014). The inclusion of Impromptu Speaking under Test Anxiety further underscores the anxiety related to speaking without preparation. A participant shared, "I get really nervous when I have to speak without preparation. I never know what to say." This confirms the established relationship between assessment pressures and performance anxiety, validating the categorisation.

Factor 4: Communication Apprehension

The theme Speaking with Fluent English Speakers highlights the apprehension many participants feel when interacting with more proficient speakers. Several students reported feeling intimidated, fearing they might be judged for their language abilities. One respondent expressed, "I always feel nervous when I have to talk to native speakers. I'm afraid I will sound stupid." This theme aligns with McCroskey (1977), who noted that communication apprehension is often linked to perceived differences in language proficiency. The classification of this theme under Communication Apprehension is well-supported by literature, which identifies how such apprehension can negatively affect learners' willingness to engage in spoken interactions.

Another theme within this factor, Meeting New People, reflects anxiety associated with initial interactions, where participants feared that their English might not meet expectations. One student shared, "Meeting new people is scary because I worry about my English not being good enough." This indicates the complex nature of communication apprehension, emphasising the need for educators to create a supportive and non-judgemental environment, particularly for students facing social anxiety.

General Anxiety

In addition to the specific themes of public speaking anxiety, some responses reflected a broader sense of unease, which did not align with any specific factor in the PSCAS evaluation. Participants mentioned physical symptoms of anxiety, such as "shaking," indicating the physical toll of stress during speaking tasks. Others described the pressure of responding to challenging situations, with one noting, "When I feel pressure to find the answer," while another cited roleplay as particularly anxiety-inducing, highlighting the stress of unprepared speaking tasks.

Some respondents also expressed feelings of uncertainty, like "Nothing is impossible," suggesting the internal pressure to perform perfectly, and "Tricky question," which reflects anxiety around difficult or unexpected queries. These responses point to a broader range of anxiety beyond public speaking tasks, underscoring the importance of addressing general anxiety in language learning environments.

The thematic analysis reveals a multifaceted landscape of public speaking anxiety among undergraduate ESL learners, with significant concerns regarding fear of negative evaluation, comfort in speaking English, test anxiety, and communication apprehension. These findings underscore the importance of addressing these issues in educational settings to help alleviate anxiety and improve students' speaking proficiency. By recognising the specific fears and discomforts articulated by participants, educators can develop targeted interventions, such as ungraded practice sessions, workshops, and more supportive speaking environments. These strategies can assist students in overcoming their anxiety, enhancing their language skills, and fostering greater confidence in diverse speaking contexts. While this study offers valuable preliminary insights, the relatively small sample size limits the generalisability of the findings. Future research with larger and more diverse samples is recommended to further validate these findings and strengthen their applicability across broader ESL populations. The insights from this study contribute to a broader understanding of the factors influencing public speaking anxiety and emphasise the need for a supportive and nurturing learning environment to promote language proficiency and self-assurance.

Implications of Comparison

Based on the themes identified in the study under each PSCAS factor, the findings suggest that some question items need to be added or revised to better capture these themes. The revised or new questions aim to measure the specific anxiety factors identified and provide a clearer understanding of participants' experiences. This section outlines the implications for each factor, along with the reasoning behind the revised questions. While the suggested revisions aim to improve the validity and reliability of the measurements, they are not necessarily conclusive and can be further refined.

Factor 1: Fear of Negative Evaluation

Table 3: Comparison of Original and Modified PSCAS Factor 1 Question Items

Original PSCAS Question	Modified PSCAS Question
6. I am afraid that other students will laugh at me while I am speaking English.	6. I am afraid that others will judge me or laugh at my mistakes, especially when I speak English in public or in front of a group.
9. I can feel my heart pounding when I am going to be called on.	9. I feel my heart pounding with anxiety when I am about to speak in front of others, especially when I fear making a mistake.
11. It embarrasses me to volunteer to go out first to speak English.	11. I feel embarrassed to volunteer or speak first in front of others, especially when I worry about making mistakes in my pronunciation or grammar.
14. I feel anxious while I am waiting to speak English.	14. I feel anxious while waiting to speak, especially when I fear making mistakes or being judged for my speaking ability.
13. Certain parts of my body feel very tense and rigid while I am speaking English.	13. Certain parts of my body feel tense and rigid when I speak English, particularly when I am worried about making mistakes or when speaking in front of an audience.
16. I have trouble to coordinate my movements while I am speaking English.	16. I have trouble coordinating my movements when I speak English, especially in situations where I fear being judged or making mistakes in front of others.

The suggested changes to the PSCAS question items for Factor 1 were informed by an analysis of survey responses, which revealed specific concerns about making mistakes and anxiety related to public speaking or presentations. The original questions were modified to more accurately reflect these issues, particularly in the context of speaking in front of others and the fear of judgment. These adjustments aim to better capture the anxiety participants feel, especially when worried about making mistakes in public settings like presentations.

The original items addressed general anxiety but did not specifically highlight fears related to making mistakes, such as pronunciation or grammar. For instance, Question 6 was modified to explicitly include the fear of judgment for language mistakes, especially in public speaking situations. This change directly responds to participants' concerns about being evaluated for errors in pronunciation or grammar during presentations or tests.

Questions 9, 13, and 16 were revised to encompass both physical anxiety symptoms and the specific fears linked to making mistakes or speaking in front of others. These modifications ensure the questions are more reflective of how anxiety manifests in real-life speaking contexts, such as formal presentations or speaking tests, and accurately capture the physical discomfort participants experience when faced with public speaking challenges.

The revision of Question 11 shifts the focus to the anxiety participants feel when volunteering to speak in front of others. This change addresses the significant concern identified in the thematic analysis about the fear of judgment in public speaking contexts, such as during presentations or formal events.

Finally, Question 14 was adjusted to better capture the anticipatory anxiety participants experience while waiting to speak. This change highlights the fear of being judged or making mistakes, making the question more relevant to real-world speaking situations where evaluation is imminent.

These changes were derived from a detailed analysis of the participants' responses, ensuring that the revised items more accurately reflect the Fear of Negative Evaluation factor, particularly in the context of making mistakes and the anxiety of speaking publicly.

Factor 2: Comfort in Speaking English

Table 4: Comparison of Original and Modified PSCAS Factor 2 Question Items

Original PSCAS Question Items	Modified PSCAS Question Items
4. I feel confident while I am speaking English.	4. I feel confident while speaking English, especially when I need to explain or elaborate on my ideas, even if the topic is unfamiliar to me.
8. I have no fear of speaking English.	8. I have no fear of speaking English, even when I need to explain ideas or elaborate on something I don't fully understand.
10. I feel relaxed while I am speaking English.	10. I feel relaxed while speaking English, even when I need to elaborate on my thoughts or discuss topics I'm not fully familiar with.
12. I face the prospect of speaking English with confidence.	12. I face the prospect of speaking English with confidence, even when I am unsure of how to explain my ideas.

The revisions to the PSCAS items under Factor 2: Comfort in Speaking English were guided by the theme of understanding and elaborating ideas. Participants' responses indicated a particular struggle when asked to explain or elaborate on topics they were unfamiliar with, often causing discomfort and a lack of confidence. Questions 4, 8, 10, and 12 were modified to reflect this concern. For instance, questions about general confidence, relaxation, and fear of speaking were expanded to specifically address elaborating on ideas, particularly when the topic was unclear or lacking sufficient detail. The revised versions now capture the comfort participants feel when required to explain or elaborate on unfamiliar topics, providing a more accurate measure of their speaking comfort in such situations.

These changes aim to improve the PSCAS's ability to assess participants' confidence and comfort in elaborating ideas, a key aspect of speaking English in real-world contexts.

Factor 3: Test Anxiety

Table 5: Comparison of Original and Modified PSCAS Factor 3 Question Items

Original PSCAS Question Items	Modified PSCAS Question Items
1. I never feel quite sure of myself while I am speaking English.	1. I never feel quite sure of myself while speaking English, especially in exams or formal tests.
7. I get nervous when the English teacher asks me to speak English which I have prepared in advance.	7. I get nervous when I have to deliver prepared responses in a speaking test or formal assessment.
17. Even if I am very well prepared, I feel anxious about speaking English.	17. Even if I am well prepared, I feel anxious about speaking English in exams or high-pressure situations.
<i>New Question</i> (N/A in original)	18. I feel nervous when I have to respond to unexpected questions in English without preparation.

The modifications to Factor 3: Test Anxiety were based on respondents' concerns about performance pressure in speaking tests and impromptu speaking situations. The original items broadly measured confidence and nervousness, but they did not specify the high-stakes nature of exams. To address this, Question 1 was refined to highlight exam settings, while Question 7 now explicitly refers to formal assessments, where students must deliver prepared responses under pressure. Question 17 was also adjusted to capture anxiety even when students feel well-prepared, particularly in exam or presentation contexts.

Since the original PSCAS questionnaire consisted of only 17 items, an additional question (Q18) was introduced to measure impromptu speaking anxiety. Respondents frequently mentioned stress when responding to unexpected questions, which was not adequately captured in the original scale. This new item

ensures that the PSCAS accounts for both structured speaking tests and spontaneous speaking challenges, providing a more comprehensive assessment of test-related anxiety.

Factor 4: Communication Apprehension

Table 6: Comparison of Original and Modified PSCAS Factor 4 Question Items

Original PSCAS Question Items	Modified PSCAS Question Items
2. I start to panic when I have to speak English without preparation in advance.	2. I start to panic when I have to speak English without preparation, especially when speaking with fluent English speakers.
3. In a speaking class, I can get so nervous I forget things I know.	3. In a speaking class or when meeting new people, I can get so nervous that I forget things I know.
5. I get nervous and confused when I am speaking English.	5. I get nervous and confused when I am speaking English, particularly when speaking to fluent speakers or in unfamiliar situations.
15. I dislike using my voice and body expressively while I am speaking English.	15. I feel uncomfortable using my voice and body expressively while speaking English, especially in conversations with new people.
<i>New Question</i> (N/A in original)	19. I feel anxious when speaking to someone more fluent in English, fearing that I might be judged for my pronunciation or accent.

The revisions to Factor 4: Communication Apprehension incorporate the key themes identified from participant responses: anxiety when speaking with fluent English speakers and meeting new people. The original PSCAS items were modified to reflect these concerns, ensuring better alignment with real-life communication challenges.

Participants reported feeling intimidated by fluent English speakers, worrying about pronunciation and fluency. This concern was integrated into Questions 2, 5, and 15, making the items more relevant to their experiences. Likewise, meeting new people was identified as a source of communication anxiety, leading to adjustments in Questions 3 and 15 to capture nervousness in unfamiliar social interactions.

Since the original PSCAS did not include a direct measure of apprehension when speaking to more fluent individuals, a new item (Q19) was added. This ensures that the scale better captures this specific fear, distinct

from test-related anxiety covered under Factor 3. These refinements improve the questionnaire's accuracy in assessing students' communication apprehension.

General Anxiety

Table 7: Comparison of Original and Modified PSCAS Factor 5 Question Items

Original PSCAS Question Items	Modified PSCAS Question Items
N/A (Not included in original PSCAS)	20. I experience general anxiety that affects my ability to speak English confidently, even in non-speaking situations.

The original PSCAS did not include items addressing general anxiety, yet respondent feedback suggests that anxiety extends beyond specific speaking situations. Many participants reported experiencing physical symptoms like shaking and unease during roleplay activities or when feeling pressured to find answers. This highlights a broader, underlying anxiety that could affect their confidence in speaking English across various contexts.

To address this gap, General Anxiety is introduced as a new factor in the PSCAS questionnaire, with an additional item (Q20) to measure anxiety that may indirectly impact English-speaking performance. This revision ensures a more comprehensive assessment of students' anxiety triggers, recognizing that some learners experience nervousness beyond structured speaking tasks. Incorporating this factor enhances the validity of the PSCAS by capturing a wider spectrum of anxiety experiences relevant to language learning. To sum up, the modifications to the PSCAS questionnaire offer a more precise representation of students' anxiety in English-speaking situations by incorporating insights from their responses. The revised PSCAS more effectively captures key dimensions of speaking anxiety, including fear of negative evaluation, comfort in speaking English, test anxiety, communication apprehension, and general anxiety.

In addition to refining existing items, new questions were introduced to address gaps identified through respondent feedback. Specifically, Q18 (Test Anxiety) addresses students' fear of impromptu speaking in high-pressure situations, Q19 (Communication Apprehension) reflects the intimidation experienced when speaking with more fluent speakers, and Q20 (General Anxiety) acknowledges broader unease beyond structured speaking tasks. These additions strengthen the PSCAS, enhancing its validity and providing deeper insights into students' speaking anxiety. By refining the instrument, this study aims to facilitate more targeted support strategies to help students overcome their speaking-related anxieties. However, given the modest sample size, future validation with larger and more varied groups is essential to further strengthen the robustness and generalisability of the revised PSCAS framework.

The modified PSCAS questionnaire items are presented in the table below.

Table 8: Modified version of PSCAS Question Items

No.	Modified PSCAS Question Items	1	2	3	4	5
1	I never feel quite sure of myself while speaking English, especially in exams or formal tests.					
2	I start to panic when I have to speak English without preparation, especially when speaking with fluent English speakers.					
3	In a speaking class or when meeting new people, I can get so nervous that I forget things I know.					
4	I feel confident while speaking English, especially when I need to explain or elaborate on my ideas, even if the topic is unfamiliar to me.					
5	I get nervous and confused when I am speaking English, particularly when speaking to fluent speakers or in unfamiliar situations.					
6	I am afraid that others will judge me or laugh at my mistakes, especially when I speak English in public or in front of a group.					
7	I get nervous when I have to deliver prepared responses in a speaking test or formal assessment.					
8	I have no fear of speaking English, even when I need to explain ideas or elaborate on something I don't fully understand.					
9	I feel my heart pounding with anxiety when I am about to speak in front of others, especially when I fear making a mistake.					
10	I feel relaxed while speaking English, even when I need to elaborate on my thoughts or discuss topics I'm not fully familiar with.					
11	I feel embarrassed to volunteer or speak first in front of others, especially when I worry about making mistakes in my pronunciation or grammar.					
12	I face the prospect of speaking English with confidence, even when I am unsure of how to explain my ideas.					
13	Certain parts of my body feel tense and rigid when I speak English, particularly when I am worried about making mistakes or when speaking in front of an audience.					
14	I feel anxious while waiting to speak, especially when I fear making mistakes or being judged for my speaking ability.					
15	I feel uncomfortable using my voice and body expressively while speaking English, especially in conversations with new people.					

16	I have trouble coordinating my movements when I speak English, especially in situations where I fear being judged or making mistakes in front of others.					
17	Even if I am well prepared, I feel anxious about speaking English in exams or high-pressure situations.					
18	I feel nervous when I have to respond to unexpected questions in English without preparation.					
19	I feel anxious when speaking to someone more fluent in English, fearing that I might be judged for my pronunciation or accent.					
20	I experience general anxiety that affects my ability to speak English confidently, even in non-speaking situations.					

The modified PSCAS scoring calculation follows the original framework while adapting to the expanded 20-item questionnaire. Each item is rated on a five-point Likert scale, ranging from 5 (“Strongly Agree”) to 1 (“Strongly Disagree”). The total score is obtained by summing all responses, with a maximum possible score of 100 and a minimum of 20. To adjust for baseline scoring, the total score is reduced by 20, ensuring consistency in interpretation with the original PSCAS. Anxiety levels are categorized based on proportional thresholds: scores above 80 indicate high anxiety, scores between 80 and 60 reflect moderate anxiety, and scores below 60 represent low anxiety. This refined scoring method ensures a precise evaluation of students' speaking anxiety while maintaining comparability with previous research utilizing PSCAS.

Conclusion

This study examined public speaking anxiety among undergraduate ESL students by focusing on the four original PSCAS factors: Fear of Negative Evaluation, Comfort in Speaking English, Test Anxiety, and Communication Apprehension. Additionally, it identified an extra factor, General Anxiety. The quantitative findings confirm that Fear of Negative Evaluation ($M = 3.17$) and Communication Apprehension ($M = 3.06$) are the most significant anxiety factors. These are followed by Comfort in Speaking English ($M = 3.02$) and Test Anxiety ($M = 2.98$). The results highlight those concerns related to social evaluation and hesitation in verbal communication present major challenges to students' speaking confidence.

The thematic analysis further revealed several anxiety triggers that were not explicitly covered in the original PSCAS. These include the fear of impromptu speaking, intimidation when interacting with fluent speakers, and a broader sense of unease in academic settings. To address these gaps, this study introduced three additional PSCAS items. Q18 (Test Anxiety) captures the fear of impromptu speaking, while Q19 (Communication Apprehension) reflects students' feelings of intimidation in conversations with fluent speakers. Meanwhile, Q20 (General Anxiety) acknowledges a broader sense of academic unease. These

modifications strengthen the validity of the PSCAS by ensuring a more comprehensive assessment of students' speaking-related anxiety.

By bridging the gap between self-reported experiences and existing anxiety scales, this study underscores the need for targeted interventions. Educators can use these findings to develop strategies such as ungraded speaking activities, structured exposure to real-world communication scenarios, and confidence-building exercises. Importantly, given the relatively small sample size and the preliminary nature of this study, future research should focus on validating the revised PSCAS with a larger and more diverse learning contexts to ensure its broader applicability and strong generalisation on the findings.

Author Contributions

Ch'ng, L.C., Noor Ain, S., and Chan, A.N., jointly contributed to the conception and design of the study. Ch'ng, L.C. led the data collection, analysis, and interpretation of the findings. All authors played key roles in drafting the manuscript, providing substantial revisions, overseeing the entire project, and safeguarding the research's integrity. They reviewed the final manuscript and approved it for publication.

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Data Availability Statement

The data were collected from all participants who attended the workshop. Their rights were explained, and informed consent was obtained before they completed the survey.

Conflicts of interest

The authors declare no conflicts of interest.

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