Investigating Public Speaking Anxiety and the Pygmalion Effect

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ABSTRACT

Public speaking is a fundamental skill valued in academic, professional, and social contexts. However, for many learners, speaking in front of an audience provokes significant anxiety that can undermine confidence, reduce participation, and impair academic performance. Public speaking anxiety (PSA) is recognised as a situationspecific form of communication apprehension, encompassing cognitive components such as self-beliefs and performance expectations; behavioural responses such as avoidance or visible tension while speaking; and physiological manifestations that can affect delivery quality. These components often interact, shaping how individuals perceive and respond to speaking situations. The purpose of this study was to investigate public speaking anxiety among undergraduates and to explore how learners identify beliefs and expectations, behaviours and performance in public speaking anxiety. Quantitative research through the lens of the Pygmalion effect was conducted among 204 undergraduates from various majors at a university in Selangor who were studying Mandarin (level 2 and above). The survey instrument employed is the 5-point Likert scale survey. This study replicates the findings of Bartholomay & Houlihan (2016). The study is divided into four parts that address the demographic profile, beliefs and expectations, behaviour, and performance. The study reveals that the most prominent concern was the fear of forgetting lines or losing words during a Mandarin public speaking session. The findings suggest that internal anxiety, rather than external factors like audience interaction, primarily triggers learners' behaviours associated with public speaking anxiety. The result also indicates that learners' selfevaluations were more strongly linked to physiological symptoms of anxiety, such as muscle tension and raised heart rate, than to severe physical discomfort. Lastly, the findings reveal that a strong positive relationship exists between all the Pygmalion effects on public speaking anxiety.

Keywords: Public Speaking Anxiety, The Pygmalion Effect, Foreign Language Learning

INTRODUCTION

Background of Study

Public speaking is a fundamental skill valued in academic, professional, and social contexts. However, for many learners, speaking in front of an audience provokes significant anxiety that can undermine confidence, reduce participation, and impair academic performance (Bodie, 2010). Public speaking anxiety (PSA) is recognised as a situation-specific form of communication apprehension, encompassing cognitive components such as self-beliefs and performance expectations; behavioural responses such as avoidance or visible tension while speaking; and physiological manifestations that can affect delivery quality (Antony et al., 2006; Behnke & Sawyer, 2004; McCroskey & Andersen, 1976). These components often interact, shaping how individuals perceive and respond to speaking situations.

PSA is especially common in higher education, where learners are frequently required to give presentations, join group discussions, and complete performance-based assessments. Research has linked higher levels of PSA to reduced academic achievement, reduced participation, and negative self-evaluation in academic contexts (Gallego et al., 2022; McCroskey & Andersen, 1976; Tridinanti, 2018). Despite decades of research, many learners continue to struggle with PSA, often without access to targeted strategies that address the combined influence of psychological, behavioural, and physiological factors.

The Pygmalion effect provides a useful prism for understanding these patterns. This psychological theory proposes that individuals' performance can be shaped by the expectations placed upon them, whether by others or internalised from prior experiences (Bushra, 2024; Rosenthal & Jacobson, 1968). In the context of PSA, learners who expect to perform poorly may unintentionally behave in ways that confirm those expectations, reinforcing anxiety and perpetuating underperformance.

Structured instruments, such as the Public Speaking Anxiety Scale (PSAS), provide standardised ways to assess PSA across cognitive, behavioural, and affective dimensions (Bartholomay & Houlihan, 2016). However, such tools often overlook the subjective reasoning underlying learners' experiences. A recent qualitative study among postgraduate students in Malaysian public universities found that while PSA scales can quantify levels of fear, only in-depth interviews revealed the nuanced sources of anxiety and the strategies learners adopt to manage it, highlighting the value of approaches that capture personal interpretations (Mohd Sobri Paridaluddin et al., 2023).

How students manage speaking tasks depends partly on their coping habits and personality. (Diephaus, 2022; Kelsen, 2019). A more holistic understanding of PSA, therefore, requires attention to both shared patterns and individual variability. By focusing on the learners' perspectives, the present study seeks to inform evidencebased interventions that can help them manage PSAs and realise their communication potential.

Accordingly, this study investigates how learners perceive PSA through the lens of the Pygmalion effect, focusing on beliefs and expectations, behavioural responses, and perceived performance, as well as the relationships among these components.

Statement of Problem

The psychological and academic consequences of PSA are well documented (Behnke & Sawyer, 2004; Dwyer & Davidson, 2012), yet many studies examine its components separately. Research often focuses exclusively on symptoms, coping strategies, or performance outcomes without capturing how these aspects interact in authentic academic settings.

Despite the well-established Pygmalion effect in educational research, its application to PSA remains limited. Few studies have explored how perceived expectations, whether from lecturers, peers, or prior experiences, shape speaking behaviour and self-assessed performance. This is a significant gap given the cyclical nature of anxiety and the role of self-beliefs in sustaining avoidance and underperformance (Bushra, 2024; Rosenthal & Jacobson, 1968).

Recent research highlights the value of qualitative, learner-centred approaches to capturing individuals' interpretations of anxiety, expectations, and performance. Grieve et al. (2021), in a qualitative study of students' fears and coping strategies in public speaking, show how such methods can reveal aspects of PSA that standard measures may overlook. Similarly, Kelsen (2019) highlights the role of personality and coping styles in communication apprehension, while Diephaus (2022) provides recent, context-specific insights, reinforcing the need for in-depth and contextually informed exploration.

In response, the present study seeks to provide an integrated perspective on PSA by examining how learners identify and relate their beliefs, behaviours, and performances to public speaking contexts. By doing so, it aims to contribute to both theoretical understanding and practical strategies for supporting learners, particularly by clarifying how expectations influence performance in higher education.

Objective of the Study and Research Questions

The purpose of this study was to investigate public speaking anxiety among undergraduates. This study specifically aims to address the following research questions.

- How do learners identify beliefs and expectations in public speaking anxiety?
- How do learners identify behaviours associated with public speaking anxiety?
- How do learners evaluate their performance in public speaking anxiety?
- Is there a relationship between all the Pygmalion effects in public speaking anxiety?

LITERATURE REVIEW

Theoretical Framework of the Study

According to Rosenthal & Jacobson (1968), teachers' expectations of students influence their selffulfilling prophecy and lead to improved academic performance. This is known as the Pygmalion Effect. Rosenthal's research identified five stages: 1. Factors that trigger teacher expectations, 2. Teacher expectations, 3. Positive changes in students as a result of these expectations, 4. Short-term outcomes of these changes, and 5. Long-term outcomes of these changes (Rosenthal, 1994). According to the Pygmalion effect, regardless of whether the teacher's expectations of students are accurate, students will perceive and respond to the teacher's expectations, resulting in positive learning outcomes. Rosenthal also proposed a four-factor "theory" that influences teacher expectations. Teachers create a warmer social and emotional environment for different students, teach more content and more challenging material, and provide students with more opportunities to respond and more informative feedback (Rosenthal, 1994). These differential treatments can affect students' selffulfilling prophecy and learning motivation. Students receiving more positive evaluations and positive suggestions can help them improve their self-efficacy and self-esteem. (Lee Jussim, Stephanie Madon, 1994).

In a competitive global world, public speaking is a necessary skill for university students. Horwitz et al. (1986) discovered that students learning a foreign language often struggle with speaking in class. Students often report that they tend to freeze during public speaking situations in foreign language classes. Symptoms of public speaking anxiety include trembling, sweating, a rapid heartbeat, and difficulty breathing (Mokhtar, 2025). Fauzi et al. (2023) highlight that a lack of public speaking skills and the ability to effectively engage with an audience are considered key factors contributing to public speaking anxiety. The absence of public speaking skills can result in students feeling less confident, which in turn contributes to their public speaking anxiety. In addition, Taly & Paramasivam (2020) found that speakers are worried that their lack of professional knowledge during public speaking will cause the audience to have negative evaluations and judgments about them. Ikhsanto & Nastiti (2025) believe that self-confidence levels are one of the factors affecting public speaking anxiety. People who lack confidence are more likely to experience disruptions due to doubts about their abilities, which then lead to nervousness and anxiety. Raja's (2017) research has shown that students' fear of public speaking is acquired and can be overcome through constant practice and rehearsal before giving a speech.

For many people, even the thought of speaking in front of others triggers intense anxiety and fear. Studies have identified that low confidence, concerns about content accuracy, fear of criticism, and limited audience engagement skills are key contributors to public speaking anxiety. Overcoming these fears is crucial for enhancing public speaking skills.

Past Studies on Public Speaking Anxiety

Researchers have widely studied public speaking anxiety among undergraduates. The study conducted by Ch'ng et al. (2025) examined the causes of anxiety, overall anxiety levels, and contributing factors specifically among undergraduate learners of English as a second language. The study conducted a mixed-methods approach among 65 undergraduates at Universiti Teknologi MARA. The study suggests that alleviating public speaking anxiety requires targeted supportive interventions to address fear of negative evaluation and communication anxiety. It also suggests that ungraded speaking activities, involving students in group discussions or informal presentations, can gradually build students' confidence and improve their English communication skills.

The study by Mokhtar (2025), using semi-structured interviews, investigated public speaking anxiety and coping strategies among Malaysian university students. The study involved 22 Malaysian university students enrolled in public speaking and related courses. The study revealed that students face language and vocabulary challenges during public speaking and experience anxiety due to concerns about grammatical errors and negative feedback. It was also suggested ways to reduce public speaking anxiety, including deep breathing, positive selftalk, seeking peer support, and avoiding direct eye contact or using props or scripts.

Next, the study by Abdullah et al. (2024) is done to investigate the difficulties and obstacles faced by Malaysian undergraduates in public speaking in English through face-to-face semi-structured interviews with 44 undergraduates from nine different faculties at Universiti Sultan Zainal Abidin (UniSZA), Malaysia. According to the findings, undergraduates face poor language skills in grammar, vocabulary, pronunciation, and fluency in public speaking in English, which in turn leads to a dislike for English, nervousness, low self-esteem, lack of confidence, shyness, and fear of eye contact.

The study by Liu (2024) investigated the impact of personality traits and self-perceived public speaking ability on public speaking anxiety. The study was done in China. 205 university students participated in the questionnaire. The results first indicated that personality traits influence public speaking anxiety. The study also indicated that individuals who are extroverted, self-disciplined, and emotionally stable are less anxious when speaking in English in public.

Next, Gebre (2024) conducted a study to explore the main factors contributing to students' anxiety about public speaking. The study involved 35 fourth-year psychology students at the Faculty of Education and Behavioural Sciences at Bonga University. The study employed a combination of quantitative and qualitative methods. Data were collected using a self-administered questionnaire. The results revealed that lack of confidence was the primary cause of students' fear of public speaking. The study also found that students who excelled in debate and public speaking performed better and experienced less anxiety during presentations.

A study by Sulistyowati & Mukti (2023) investigated the level of foreign language learning anxiety in online public speaking courses and explored its impact on students' experiences after participating in these courses. This study employed a quantitative research method and questionnaire survey among 50 randomly selected students from a total of 159 students at Sanata Dharma University. The results indicated that students reported feeling more anxious during offline public speaking courses compared to online courses. Students expressed concerns about difficulties in giving presentations in real life.

In summary, a lack of confidence among university students causes public speaking anxiety, leading to concerns about grammatical errors and negative feedback. Confidence can’t be built instantly. It requires longterm practice, including developing eye contact with the audience and expanding vocabulary, to reduce students' public speaking anxiety.

Conceptual Framework of the Study

The Pygmalion effect was introduced by Rosenthal & Jacobson (1968), and the effect states that one person's expectations influence another person’s behaviour. In the context of public speaking anxiety, when a speaker prepares for a public speaking presentation, the speaker’s anxieties extend beyond his or her fears. To begin with, personally, the speaker is anxious to start the presentation, no matter how prepared he or she is.

Nevertheless, what added to the anxiety is the audience’s expectation that the presentation is worth listening to. The person who assesses expects the speaker to prove that he or she has learnt well. Lastly, the speaker expects that he or she will perform well. This is also reported by Rahmat (2019), who agrees that the speaker’s expectations are influenced by both internal (the speaker) and external factors (the audience and the assessor).

Figure 1 below shows the conceptual framework of the study. The concept of this study is based on the factors of Pygmalion Effects by Rosenthal & Jacobson (1968), which state that the speaker is influenced by the beliefs of others (the audience). The speaker's cognitive elements, such as confidence, concentration, and even worry, manifest this belief. This action then influences the actions of others (the audience and the assessor). The

speaker's behaviour reflects the influence of others. This, in turn, influences how the speaker performs and is perceived in terms of physiological aspects.

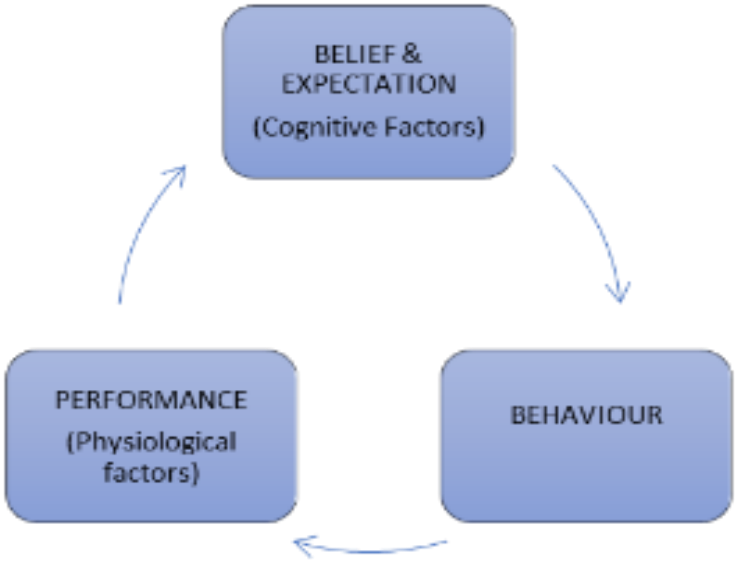

Figure 1 Conceptual Framework of the Study

Public Speaking Anxiety and the Pygmalion Effect

METHODOLOGY

This quantitative study investigates public speaking anxiety through the lens of the Pygmalion effect. The survey had 204 respondents, which was a convenient sample size. The survey employed a 5-point Likert scale. Table 1 displays the categories used for the Likert scale: 1 stands for never, 2 for rarely, 3 for sometimes, 4 for very often, and 5 for always. Table 1 Likert Scale Use

1	Never
2	Rarely
3	Sometimes
4	Very Often
5	Always

Table 2 displays the survey distribution. This study replicates Bartholomay & Houlihan's (2016) findings to reveal the variables listed in the table below. The survey comprises four parts. Section A contains items about the demographic profile. Section B has 8 items on Beliefs & Expectations. Section C has 6 items on behaviour, and Section D has 5 items on performance.

Table 2 Distribution of Items in the Survey

NO	Self-Fulfilling Prophecy (Pygmalion Effect)	VARIABLE	SUB-CATEGORY	CRONBACH'S ALPHA
B	Beliefs & Expectations	COGNITIVE	8	.921
C	Behaviour	BEHAVIOURAL	6	.901
D	Performance	PHYSIOLOGICAL	5	.898
		TOTAL ITEMS	19	.958

Table 2 also shows the reliability of the survey. Cronbach's alpha values for beliefs and expectations are .921, .901 for behavioural, and .898 for physiological. The overall Cronbach's alpha for all 19 items is .958, thus revealing a good reliability of the instrument chosen (Jackson, 2015). Further analysis is performed using SPSS to provide findings which answer the research questions for this study.

FINDINGS

Demographic Analysis

Table 3 Percentage for Demographic Profile

Question	Demographic Profile	Categories	Percentage (%)
1	Gender	Male	20%
		Female	80%
2	Discipline	Computer Science	11%
		Arts & Humanities	12%
		Engineering	20%
		Business, Management & Accounting	48%
		Law	9%
3	Mandarin Level	TMC 451	38%
		TMC 452	30%
		TMC 501	32%
4	Fear of Learning Mandarin	Yes	32%
		No	68%
5	Self-Rate Proficiency	Cannot communicate in Mandarin	43%
		Can communicate in basic Mandarin	53%
		Can communicate fluently in Mandarin	4%

Table 3 demonstrates the gender distribution, the academic background, the Mandarin level, the fear of learning Mandarin and the self-rated Mandarin proficiency of 204 respondents who participated in this study. There were 20% male and 80% female respondents. This indicates that the respondent group consists of a greater proportion of females compared to males. The respondents are distributed across various disciplines. Among 204 respondents, 48% are students engaged in business, management and accounting; 20% in engineering; 12% in arts and humanities; 11% in computer science; and 9% in law.

As the survey was targeted to explore the public speaking anxiety of the undergraduates who had been through the language project that includes public speaking in the previous semester, students who were still in Mandarin level 1 were excluded from the survey, as they had no experience with the language project that would be held at the end of the semester yet. Out of a total of 204 respondents, 38% are enrolled in Mandarin Level 2

(TMC451), 30% are registered in Mandarin for Business Communication Level 2 (TMC452), and 32% are registered in Mandarin Level 3 (TMC501).

Table 3 shows that 68% of respondents are not afraid to learn Mandarin, while 32% are. For the selfrated Mandarin proficiency, almost half of the respondents, or 43%, rated themselves as unable to communicate in Mandarin; 53% of the respondents rated themselves as able to communicate in basic Mandarin, and only 4% of the respondents rated themselves as able to communicate fluently in Mandarin. The data indicate that while the

majority of students hold a positive attitude toward learning Mandarin, overall self-rated speaking proficiency remains low, with most respondents reporting either no ability or only basic ability to communicate. Descriptive Statistics

Findings for Beliefs & Expectations

This section presents data to answer research question 1: How do learners identify beliefs & expectations about public speaking anxiety? The study measures this through cognitive factors.

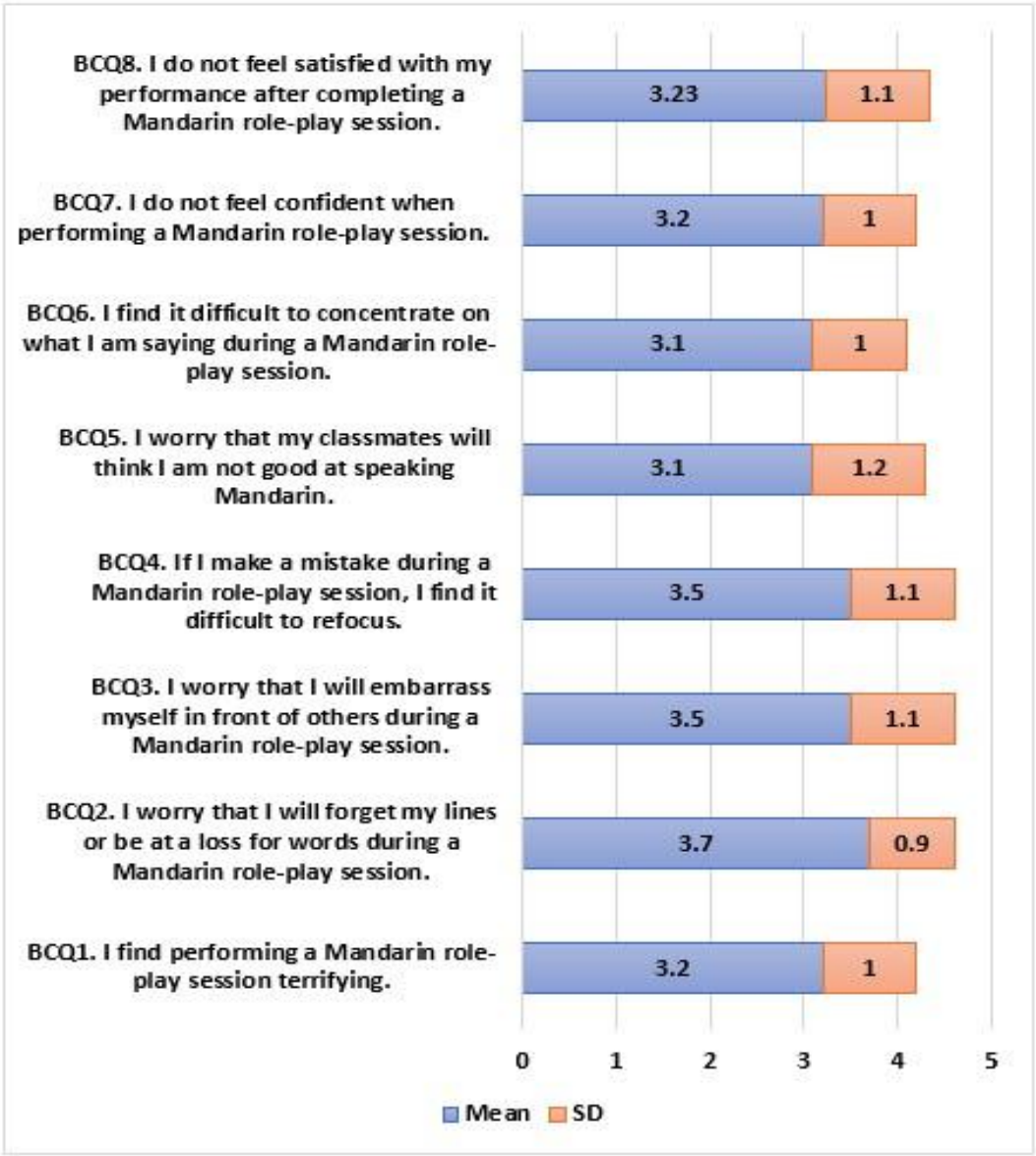

Figure 2 Mean for Cognitive Factors

Figure 2 presents findings addressing Research Question 1 on how learners identify beliefs and expectations in public speaking anxiety. In this study, these were measured through eight cognitive factors. The most prominent concern (mean = 3.7, SD = 0.9) was the fear of forgetting lines or losing words during a Mandarin role-play session. This was followed by worries about embarrassing oneself (mean = 3.5, SD = 1.1) and difficulty refocusing after mistakes (mean = 3.5, SD = 1.1), indicating consistently high levels of apprehension in these areas. Feelings of terror before performing (mean = 3.2, SD = 1.0), low confidence (mean = 3.2, SD = 1.0), and dissatisfaction after performance (mean = 3.23, SD = 1.1) also featured prominently. Lower, though still notable, means were recorded for concerns about classmates' perceptions (mean = 3.1, SD = 1.2) and difficulty concentrating during the role-play (mean = 3.1, SD = 1.0). Overall, the results suggest that cognitive dimensions of PSA are dominated by anticipatory fears of failure and negative evaluation, which may directly influence learners' focus, confidence, and self-assessment.

Findings For Behaviour

This section presents data to answer research question 2: How do learners identify behaviours associated with public speaking anxiety?

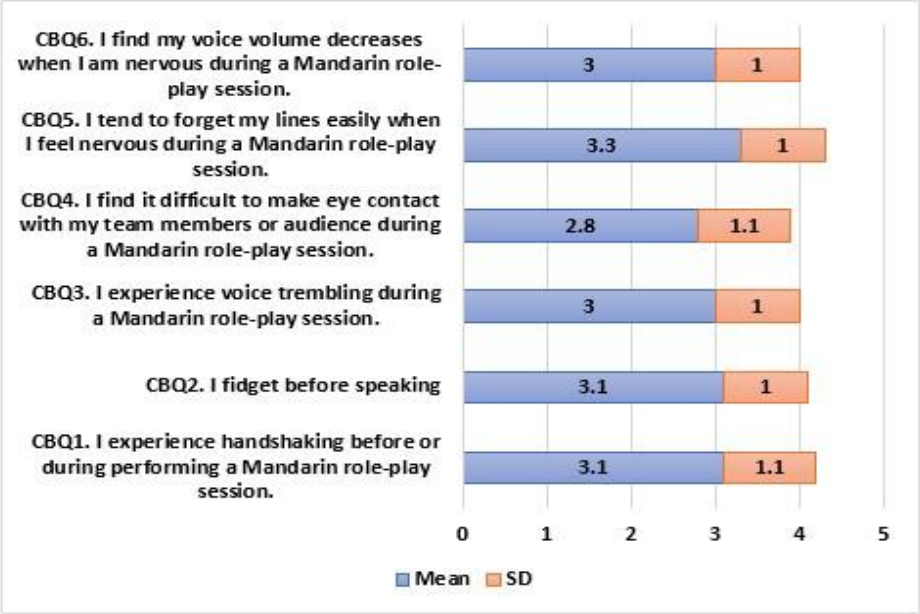

Figure 3 Mean for Behavioural Factors

Figure 3 states the mean for behavioural factors. Item 5 (mean = 3.3, SD = 1.0) indicates that learners often feel nervous and forget their lines during a Mandarin role-play. Next, item 1 (mean = 3.1, SD = 1.1) shows the learners' experience of handshaking before or during performing a Mandarin role-play session. Item 2 (mean = 3.1, SD = 1.0) shows that the learners feel nervous before the Mandarin role-play session. Finally, item 4 (mean = 2.8, SD = 1.1) indicates that learners are hesitant to make eye contact with their teammates or the audience during a Mandarin role-play session.

Findings For Performance

This section presents data to answer research question 3: How do learners identify their performance in public speaking anxiety? In the context of this study, this is measured by physiological factors.

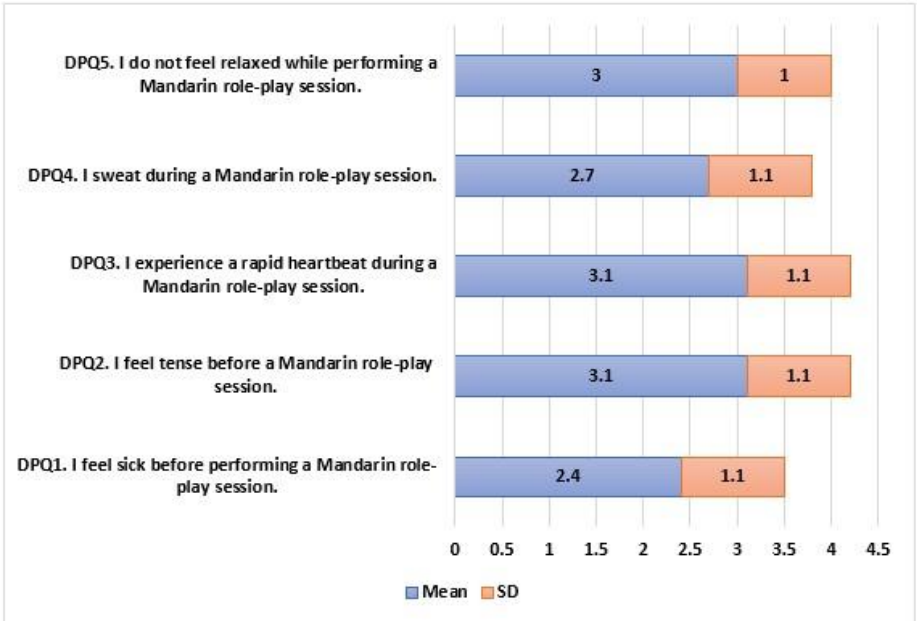

Figure 4 Mean for Physiological Factors

Figure 4 shows the mean for physiological factors. Item 2 (mean=3.1, SD=1.1) states that the learners felt tense before the role-play. Item 3 (mean-3.1, SD-1.1) states that the learners experienced a rapid heartbeat during the Mandarin role-play session. Next, item 5 (mean=3, SD=1.0) states that they did not feel relaxed during the role-play session. Lastly, item 1 (mean=2.4, SD=1.1) states that they felt sick before performing a role-play.

Exploratory Statistics

Findings for the relationship between all components in Pygmalion effects on public speaking anxiety. This section presents data to answer research question 3: Is there a relationship between all components of Pygmalion effects in public speaking anxiety?

To determine if there is a significant association between the mean scores and all components of Pygmalion's effects on public speaking anxiety, the data were analysed using SPSS for correlations. Results are presented separately in tables 4, 5 and 6 below.

Table 4 Correlation between Beliefs & Expectations and Behaviour

		BELIEFS & EXPECTATIONS	BEHAVIOUR
BELIEFS & EXPECTATIONS	Pearson (Correlation	1	.804**
	Sig (2-tailed)		.000
	N	204	204
BEHAVIOUR	Pearson (Correlation	.804**	1
	Sig (2-tailed)	.000	
	N	204	204

**Correlation is significant at the level of 0.01 (2-tailed).

Table 4 shows that there is an association between beliefs, expectations, and behaviours. Correlation analysis indicates that there is a highly significant association between beliefs & expectations and behaviour (r=.804**) and (p=.000). According to Jackson (2015), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This also means that there is a strong positive relationship between beliefs, expectations, and behaviours.

Table 5 Correlation between Behaviour and Performance

		BEHAVIOUR	PERFORMANCE
BEHAVIOUR	Pearson (Correlation	1	.802**
	Sig (2-tailed)		.000
	N	204	204
PERFORMANCE	Pearson (Correlation	.802**	1
	Sig (2-tailed)	.000	
	N	204	204

**Correlation is significant at the level of 0.01 (2-tailed).

Table 5 shows that there is an association between behaviour and performance. Correlation analysis indicates that there is a highly significant association between behaviour and performance (r=.802**) and (p=.000).

According to Jackson (2015), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0.

This also means there is a strong positive relationship between behaviour and performance.

Table 6 Correlation between Performance and Beliefs & Expectations

		PERFORMANCE	BELIEFS & EXPECTATIONS
PERFORMANCE	Pearson (Correlation	1	.722**
	Sig (2-tailed)		.000
	N	204	204
BELIEFS & EXPECTATIONS	Pearson (Correlation	.722**	1
	Sig (2-tailed)	.000	
	N	204	204

**Correlation is significant at the level of 0.01 (2-tailed).

Table 6 shows that there is an association between performance and beliefs & expectations. Correlation analysis indicates that there is a highly significant association between performance and beliefs & expectations (r=.722**) and (p=.000). According to Jackson (2015), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between performance, beliefs, and expectations.

CONCLUSION

SUMMARY OF FINDINGS AND DISCUSSIONS

The study investigates public speaking anxiety among undergraduates. In response to the first research question about how learners identify beliefs and expectations in public speaking anxiety, the findings indicate that the most prominent concern was the fear of forgetting lines or losing words during a Mandarin role-play session. In contrast, the least frequently reported concerns were about classmates' perceptions and difficulty concentrating during the Mandarin role-play session. This indicates that learners may experience high levels of internal anxiety related to memory and fluency. They are more focused on their performance than on external judgments. The external factors, such as peer perceptions and distractions, play a comparatively smaller role in their public speaking performance. This outcome aligns with a study by Tian Li (2020) about the analysis of the causes and treatment of public speaking anxiety, which mentioned that when the amount of internal anxiety exceeds a certain range, the role played by anxiety will hinder the speech from going smoothly, reducing the overall performance of the speaker. Emotionally, tension and anxiety continue to flow in and accumulate uncontrollably; the speakers might also lose their short-term memory. As a result, they may even forget what they were supposed to say during the speech.

In response to the second research question on how learners identify behaviours associated with public speaking anxiety. The results indicate that the learners easily feel nervous and forget their lines during a Mandarin role-play. In contrast, fear of making eye contact with their teammates or the audience during a Mandarin roleplay session was the least frequently reported behaviour. The findings suggest that internal anxiety, rather than external factors such as audience interaction, primarily triggers learners' behaviours associated with public speaking anxiety. The outcome is in accordance with the study by Du et al. (2024). The research indicated that behaviours reflecting students' anxiety include avoiding complex information in the target language, exhibiting rigidity, forgetting vocabulary and grammar they have learnt, and struggling with the content of their prepared

speeches or presentations. Additionally, these findings are consistent with the results of the first research question mentioned earlier.

To answer the third research question on how learners evaluate their performance in public speaking anxiety, the results indicate that the learners felt tense before the role-play and experienced a rapid heartbeat during the Mandarin role-play session. In contracts, feeling sick before performing a role-play was the least frequently reported symptom. This indicates that learners' self-evaluations were more strongly linked to physiological symptoms of anxiety, such as muscle tension and raised heart rate, than to severe physical discomfort. The result is consistent with research by Astrero et al. (2024), which also found that physiological effects such as increased heart rate and sweaty palms are common symptoms of public speaking anxiety that affect speaking presentations.

Lastly, the findings reveal that a strong positive relationship exists between all the Pygmalion effects on public speaking anxiety. The audience's beliefs and expectations influence a speaker's public speaking anxiety. The speaker's cognitive elements, such as confidence, concentration, and even worry, manifest this belief. This action then influences the actions of others (the audience and the assessor). The speaker's behaviour reflects the influence of others. This, in turn, influences how the speaker performs and is perceived in terms of physiological aspects.

Implications and Suggestions for Future Research

Theoretical and Conceptual Implications

The findings of this research align closely with the theoretical foundations of the Pygmalion Effect (Rosenthal & Jacobson, 1968) and public speaking anxiety in foreign language learning contexts (Horwitz et al., 1986; Fauzi et al., 2023; Ikhsanto & Nastiti, 2025).

The Pygmalion Effect emphasises that the expectations of others, particularly teachers, assessors, or audiences, can shape individuals' performances through self-fulfilling prophecies and lead to improved performance. In this study, the audience's and assessor's beliefs and expectations were shown to influence learners' cognitive states, which in turn shaped their behaviours and physiological responses during public speaking tasks. These findings also confirm Rosenthal's four-factor theory that creating a social-emotional environment, teaching more challenging content, providing opportunities to respond, and providing quality feedback contribute to performance outcomes.

From the perspective of public speaking anxiety, the study provides evidence that internal factors such as worry about forgetting lines, nervous feelings, and physiological arousal are the primary triggers of anxiety in Mandarin role-play activities. While literature often cites external factors such as fear of negative evaluation and audience interaction avoidance as significant causes of public speaking anxiety, this study reveals that these were less prominent among the participants. This suggests that in the specific context of Mandarin language role-play, learners' anxiety is more internally driven, resonating with Ikhsanto and Nastiti's (2025) argument that self-confidence plays a pivotal role in managing public speaking anxiety.

Conceptually, this integration highlights that the Pygmalion Effect does not operate in isolation but interacts dynamically with the cognitive and physiological dimensions of public speaking anxiety. Expectations from the audience and assessors influence internal cognitive states, which subsequently manifest as observable behaviours and physical symptoms. This cyclical relationship reinforces the need for interventions that target both the modification of audience or assessor expectations (external) and the strengthening of learners' selfefficacy, memory strategies, and anxiety regulation techniques (internal). Such a dual-focus approach can more effectively reduce public speaking anxiety and enhance performance in foreign language learning contexts.

Pedagogical Implications

The findings of this study have several pedagogical implications for reducing public speaking anxiety and enhancing fluency and confidence among university students learning Mandarin, particularly in role-play contexts. Lecturers should cultivate a supportive, mistake-friendly learning environment that normalises errors

and views them as integral to the learning process. They should use positive reinforcement and avoid public shaming to reduce the fear of negative evaluation.

To address the common fear of forgetting lines, instructors should train students to use keyword prompts and "get out of trouble" phrases while also encouraging rehearsal, paraphrasing, and improvisation skills. Providing constructive, specific feedback that emphasises strengths, coupled with in-class anxiety management techniques such as deep breathing and positive self-talk, can help learners manage physiological symptoms like increased heart rates and tension.

Additionally, lecturer training programmes should include explicit instructions on recognising signs of foreign language anxiety, implementing classroom coping strategies, applying positive psychology principles, and moderating expectations to create a warm, non-judgemental learning environment.

By combining emotional support with structured practice, memory strategies, and anxiety-reduction techniques, lecturers can help Mandarin learners gradually overcome their fear of public speaking, improve their fluency, and build lasting confidence for real-world communication.

Suggestions for Future Research

Future researchers could further explore the interaction between the Pygmalion Effect and public speaking anxiety in different language learning contexts, including other foreign languages and various proficiency levels, to examine whether similar patterns emerge. Research comparing different anxiety-reduction strategies, such as role-play variations and memory-enhancement techniques, could provide more conclusive evidence on their effectiveness in reducing public speaking anxiety. Besides that, future research could also investigate how changes in lecture expectations influence learners' public speaking experiences and achievement responses during public speaking tasks.

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