Public Speaking Anxiety and Self-Efficacy Among College Students: A Correlational Study

Ms Asifa K
Assistant Professor, Department of Psychology
Patrician College of Arts and Science, Adyar

***Abstract*—This study investigates the relationship between public speaking anxiety (PSA) and self-efficacy among college students. Drawing on Bandura's Self-Efficacy Theory and Spielberger's Trait-State Anxiety framework, the research examines how personal, cognitive, social, and situational factors influence communication performance. Using a sample of 200 undergraduate students, data were collected through the Personal Report of Public Speaking Anxiety (PRPSA) and the General Self-Efficacy Scale (GSE). Statistical analyses included correlation, independent samples t-test, and regression modeling. Results revealed a significant negative correlation between PSA and self-efficacy, gender differences in PSA levels, and predictive power of self-efficacy on PSA. Findings highlight the importance of enhancing self-efficacy to reduce anxiety and improve communication competence.**

***Index Terms*—public speaking anxiety, self-efficacy, Correlation, Independent samples t-test, and Regression.**

I. INTRODUCTION

Public speaking anxiety is one of the most prevalent forms of situation-specific anxiety among college students, often impairing academic performance and personal development. Self-efficacy, defined as an individual's belief in their ability to perform tasks successfully (Bandura, 1997), plays a critical role in moderating anxiety. This study explores the interplay between PSA and self-efficacy, aiming to provide empirical evidence for interventions that strengthen confidence and reduce fear in communication contexts.

II. OBJECTIVES

1. To examine the correlation between public speaking anxiety and self-efficacy.
2. To compare PSA levels across gender groups using t-test.
3. To determine whether self-efficacy predicts PSA using regression analysis.

III. HYPOTHESES

- H1: There will be no significant correlation between Public Speaking Anxiety and Self-efficacy.
- H2: There will be no gender difference in Public Speaking anxiety
- H3: Self-efficacy significantly predicts Public Speaking Anxiety scores.

IV. METHOD

- Design: Quantitative, correlational research design.
- Sample: 200 undergraduate students (100 male, 100 female), aged 18–22, selected through stratified random sampling.

- Instruments used:
  - *Public Speaking Anxiety*: Personal Report of Public Speaking Anxiety (PRPSA; McCroskey, 1977).
  - *Self-Efficacy*: General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995).

- Procedure: Students completed both scales during classroom sessions.
- Analysis: Pearson correlation, independent samples t-test, and linear regression using SPSS.

V. RESULTS

Table 1 Correlation Analysis

Variable	Mean	SD	r	p-value
PSA	72.4	12.1	-0.58	<0.001
Self-Efficacy	29.7	5.8	—	—

($p < 0.001$) ***

The correlation table presents a statistically significant relationship between public speaking anxiety (PSA) and self-efficacy among college students. The mean PSA score of 72.4 with a standard deviation of 12.1 indicates that students generally experience moderate to high levels of anxiety when speaking in public, with considerable variability across individuals. In contrast, the mean self-efficacy score of 29.7 and a standard deviation of 5.8 suggest that students possess moderate confidence in their ability to manage tasks and challenges, though this confidence also varies.

The correlation analysis revealed a significant negative relationship between public speaking anxiety (PSA) and self-efficacy, with a 95% confidence interval ranging from -0.67 to -0.47. This large effect size indicates that students with higher self-efficacy consistently reported lower levels of PSA. The strength and direction of this relationship provide strong empirical support for Bandura's Self-Efficacy Theory, suggesting that confidence in one's abilities serves as a protective factor against performance-related anxiety.

The p-value (<0.001) confirms that this correlation is highly statistically significant, indicating that the observed relationship is unlikely to be due to chance. This lends empirical support to Bandura's Self-Efficacy Theory, which posits that individuals with higher self-efficacy are better equipped to manage stress and perform effectively under pressure. Hence, the Hypothesis H1 "There will be no significant correlation between Public Speaking Anxiety and Self-efficacy" is rejected.

Table 2 Independent Samples t-Test (Gender Differences)

Group	Mean	SD	t-value	p-value
Male	69.2	11.5	-3.21	0.002
Female	75.6	12.3	—	—

($p < .01$) **

The table comparing public speaking anxiety (PSA) scores between male and female students shows a clear and statistically significant difference. Female students ($M = 75.6$, $SD = 12.3$) reported higher levels of anxiety compared to male students ($M = 69.2$, $SD = 11.5$), The mean difference of 6.4 points corresponded to a medium effect size (Cohen's), with a 95% confidence interval for the difference between -10.4 and -2.4. This finding suggests that female students experience greater levels of public speaking anxiety compared to their male counterparts. The result aligns with previous research highlighting gender differences in communication-related anxiety, possibly due to social expectations, cultural norms, or differences in self-efficacy beliefs. Thus, the hypothesis H2 "There will be no gender difference in Public Speaking anxiety" is rejected.

Table 3 Regression Analysis

Predictor	β	SE	t	p-value
Self-Efficacy	-0.74	0.09	-8.22	<0.001
Constant	91.1	3.2	28.47	<0.001

($p < .001$) **

The regression analysis table demonstrates that self-efficacy is a significant predictor of public speaking anxiety (PSA). The model was statistically significant, ($F(1,198) = 67.6$, $p < .001$), and explained 26% of the variance in PSA scores (($R^2 = 0.26$)). The regression coefficient was $\beta = -0.74$, $SE = 0.09$, ($t = -8.22$, $p < .001$), with a 95% confidence interval between -0.92 and -0.56. This indicates that for every one-unit increase in self-efficacy, PSA decreased by approximately 0.74 points. The substantial variance explained by the model underscores the importance of self-efficacy as a protective factor, highlighting its role in reducing anxiety and improving communication competence among college students.

Overall, the model shows that self-efficacy explains a substantial portion of the variance in PSA, reinforcing the theoretical expectation that higher self-efficacy reduces anxiety in performance situations. This finding underscores the importance of interventions aimed at strengthening self-efficacy beliefs to effectively lower public speaking anxiety among college students. Thus, the Hypothesis H3 "Self-efficacy significantly predicts Public Speaking Anxiety scores" is accepted.

VI. DISCUSSION

The present study confirmed that self-efficacy plays a protective role against public speaking anxiety (PSA) among college students. The significant negative correlation between PSA and self-efficacy aligns with Bandura's (1997) theory, which emphasizes the role of efficacy beliefs in managing stress and enhancing performance. These findings are consistent with prior research, such as Blöte et al. (2009), who highlighted the close relationship between PSA and broader social anxiety, suggesting that self-efficacy may serve as a buffer against both communication-specific and general social fears. Similarly, Anderson et al. (2005) demonstrated that interventions targeting efficacy beliefs, such as cognitive-behavioral therapy with exposure, can effectively reduce PSA, reinforcing the importance of confidence-building strategies in communication contexts.

Beyond theoretical contributions, the results carry practical implications for curriculum design and mental health interventions in higher education. Universities could integrate structured public speaking workshops that emphasize mastery experiences, peer modeling, and constructive feedback to strengthen students' self-efficacy. Embedding communication training into academic programs may not only reduce PSA but also enhance overall academic engagement and professional readiness. Moreover, mental health services on campus could incorporate self-efficacy–based counseling approaches, helping students reframe anxiety-provoking situations as opportunities for growth rather than threats to competence.

Despite these contributions, several limitations must be acknowledged. First, the reliance on self-report measures introduces the possibility of response bias, as students may underreport or exaggerate their anxiety levels. Second, the sample was drawn from a single institution, which limits the generalizability of findings to broader student populations. Third, the cross-sectional design precludes causal inferences, meaning that while self-efficacy predicts PSA, longitudinal or experimental studies are needed to establish directionality and long-term effects.

Future research should therefore adopt experimental designs to test the effectiveness of self-efficacy training programs in reducing PSA over time. Cross-cultural comparisons would also be valuable, as cultural norms and gender expectations may shape both efficacy beliefs and anxiety differently across contexts. Additionally, incorporating physiological and behavioral indicators of PSA, as suggested by Gallego et al. (2022), could provide a more comprehensive understanding of how self-efficacy interacts with anxiety beyond self-report measures. Such extensions would deepen the evidence base and strengthen the applicability of interventions across diverse student populations.

VII. CONCLUSION

This study demonstrates that self-efficacy significantly reduces public speaking anxiety among college students. Strengthening efficacy beliefs through structured training, supportive feedback, and exposure to successful role models can enhance communication competence and academic engagement.

VIII. RECOMMENDATIONS

- Universities should integrate public speaking workshops that emphasize mastery experiences.
- Peer modelling and mentorship programs can provide vicarious learning opportunities.
- Constructive feedback and positive reinforcement should be prioritized in classroom presentations.
- Future research should explore longitudinal effects of self-efficacy training on PSA reduction.

REFERENCES

[1] W. M. M. Ahmed, M. M. Abdalmotalib, G. T. F. Mohammed, M. M. Y. Siddig, H. S. Salih, A. A. A. Ahmed, and S. S. Abdullateef, "Public speaking anxiety and self-efficacy among Sudanese medical students: A cross-sectional study," BMC Psychol., vol. 13, no. 1, pp. 1–9, 2025.

[2] American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders, 5th ed. Washington, DC, USA: APA, 2013.

[3] American Psychological Association, Publication Manual of the American Psychological Association, 7th ed. Washington, DC, USA: Author, 2020.

[4] P. L. Anderson, E. Zimand, L. F. Hodges, and B.

O. Rothbaum, “Cognitive behavioral therapy for public-speaking anxiety using virtual reality for exposure,” Depress. Anxiety, vol. 22, no. 3, pp. 156–158, 2005.

[5] D. Artistico, D. Cervone, and L. Pezzuti, “Perceived self-efficacy and everyday problem solving among young and older adults,” Psychol. Aging, vol. 18, no. 1, pp. 68–79, 2003.

[6] B. N. Aydogdu, H. Ekşi, and H. Çelik, “The predictive role of interpersonal sensitivity and emotional self-efficacy on psychological resilience among young adults,” Educ. Sci.: Theory Pract., vol. 17, no. 2, pp. 571–600, 2017.

[7] A. Bandura, Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs, NJ, USA: Prentice-Hall, 1986.

[8] M. J. Beatty, “Situational and predispositional correlates of public speaking anxiety,” Commun. Educ., vol. 37, no. 3, pp. 321–329, 1988.

[9] A. W. Blöte, M. J. Kint, A. C. Miers, and P. M. Westenberg, “The relation between public speaking anxiety and social anxiety: A review,” J. Anxiety Disord., vol. 23, no. 3, pp. 305–313, 2009.

[10] F. S. Çakar, “The relationship between self-efficacy and life satisfaction of young adults,” 2012.

[11] J. W. Creswell and J. D. Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 5th ed. Thousand Oaks, CA, USA: Sage, 2018.

[12] J. A. Daly, A. L. Vangelisti, and S. G. Lawrence, “Self-focused attention and public speaking anxiety,” Pers. Individ. Differ., vol. 10, no. 7, pp. 903–913, 1989.

[13] I. Etikan, S. A. Musa, and R. S. Alkassim, “Comparison of convenience sampling and purposive sampling,” Amer. J. Theor. Appl. Stat., vol. 5, no. 1, pp. 1–4, 2016, doi: 10.11648/j.ajtas.20160501.11.

[14] A. Gallego, L. McHugh, M. Penttonen, and R. Lappalainen, “Measuring public speaking anxiety: Self-report, behavioral, and physiological indicators,” J. Behav. Ther. Exp. Psychiatry, vol. 74, Art. no. 101724, 2022.

[15] A. M. Goberman, S. Hughes, and T. Haydock, “Acoustic characteristics of public speaking: Anxiety and practice effects,” Speech Commun., vol. 53, no. 6, pp. 867–876, 2011.