

GENDER DIFFERENCES IN ACADEMIC ANXIETY AMONG PRE-SERVICE TEACHERS

Starr Clyde L. Sebia¹, Juvie B. Sebia², & Jay Fie P. Luzano³

^{1,2}School of Teacher Education, J. H. Cerilles State College Mati, San Miguel, Zamboanga del Sur 7029, Philippines

³College of Education, Bukidnon State University, Malaybalay City, Bukidnon, Philippines

Correspondence Tel.: +63 909 220 3050 Email: starrclyde.sebial@jhsc.edu.ph

ABSTRACT: *Academic anxiety is a critical concern in teacher education, particularly during practice teaching, when pre-service teachers are exposed to intensive academic and evaluative demands. This study examined the level of academic anxiety among Bachelor of Elementary Education (BEEd) pre-service teachers and investigated gender-based differences in anxiety during the practicum period. Using a comparative quantitative design, data were collected from 48 fourth-year BEEd students enrolled in practice teaching classes. Academic anxiety was measured using an 11-item Academic Anxiety Scale, and a non-parametric test was used for data analysis. The results indicated that most respondents experienced moderate levels of academic anxiety, with a substantial proportion reporting high anxiety. Item-level analysis revealed that anxiety was primarily driven by self-evaluative worry, concerns about assignment accuracy, and anticipatory stress related to academic demands. A statistically significant difference in academic anxiety was found between male and female pre-service teachers, with male students reporting higher anxiety. These findings highlight the prevalence of academic anxiety during practicums and underscore the need for gender-responsive and psychosocial support mechanisms within teacher education programmes to promote emotional readiness and resilience among future educators.*

Keywords: academic anxiety, pre-service teachers, practice teaching, gender differences, teacher education

1. INTRODUCTION

Academic anxiety among pre-service teachers has emerged as a significant concern in higher education, particularly in relation to preparing competent and resilient future educators. This issue aligns with global educational priorities, such as Sustainable Development Goal (SDG) 4 on quality education and SDG 3 on mental well-being in learning and professional development. Academic anxiety, characterized by persistent worry, tension, and fear related to academic demands, has been shown to impair cognitive functioning, working memory, and academic performance [11, 2]. From an equity-oriented perspective, understanding gender-based variations in academic anxiety is essential for developing inclusive and responsive support mechanisms within teacher-education institutions.

Within teacher education programmes, pre-service teachers are exposed to multiple academic stressors, including intensive coursework, frequent assessments, practice teaching requirements, and licensure examination pressures. These demands heighten vulnerability to academic anxiety, which may adversely affect concentration, motivation, resilience, classroom management skills, and overall teaching efficacy. Empirical studies indicate that teacher education students experience elevated stress levels during evaluative periods, teaching demonstrations, and field-based experiences [3, 4]. When such stressors persist, they may undermine pedagogical performance and hinder professional readiness, particularly in programs that require sustained emotional and instructional engagement.

Prior research has consistently demonstrated that academic anxiety is associated with lower academic achievement and diminished emotional well-being [2, 5]. In the Philippine context, pre-service teachers encounter additional pressures related to competency-based standards, performance tasks, and contextual realities of classroom practice [6]. Despite extensive international research on academic anxiety, empirical evidence examining gender-based anxiety patterns among Filipino pre-service teachers, particularly within

Bachelor of Elementary Education

(BEEd) programs is scarce. This gap is notable, given that BEEd students are expected to perform high levels of emotional labor while supporting learners' foundational academic and socio-emotional development.

International findings regarding gender differences in academic anxiety are mixed. Several studies have reported higher anxiety levels among female students, especially in test-related and self-evaluative situations [7, 8], whereas other investigations suggest that male students may experience heightened performance-based anxiety linked to socialized expectations of competence and pressure to succeed [9, 10]. These inconsistencies indicate that gender-related anxiety profiles may be context-dependent and influenced by cultural, institutional and disciplinary factors. However, such variations have not been sufficiently examined in Philippine teacher education, limiting the contextual relevance of existing conclusions.

Anchored in Cognitive Appraisal Theory, which conceptualizes anxiety as a function of individuals' evaluations of academic demands relative to perceived coping resources [18], and complemented by Social Cognitive Theory emphasizing the role of self-efficacy in emotional regulation [19], this study examines gender-based differences in academic anxiety among Filipino BEEd pre-service teachers. Specifically, this study provides one of the first empirical examinations of gender-related academic anxiety within this population, extending international findings to a developing teacher education context. By identifying overall anxiety levels, gender-based variations, and dominant sources of academic worry, this study contributes evidence to inform gender-responsive and psychologically supportive practices in teacher education.

2. MATERIAL AND METHODS

2.1 Research Design

A comparative quantitative research design was employed to examine gender-based differences in academic anxiety

among pre-service teachers. This design is appropriate for identifying statistically significant differences between independent groups on a psychological construct, particularly when comparing levels of academic anxiety across demographic categories such as gender [12, 16].

2.2 Participants of the study

The participants consisted of 48 Bachelor of Elementary Education (BEEd) pre-service teachers enrolled in the Teacher Education Department of a state college in the Philippines. All respondents were fourth-year students officially enrolled in the practice teaching course during the data collection period. Of the participants, 35 were female and 13 were male. As part of the practicum requirement, these student teachers were deployed to cooperating schools under the Department of Education (DepEd) Zamboanga del Sur Division and were required to complete three classroom observation activities and one final classroom observation aligned with the Philippine Professional Standards for Teachers (PPST). Participation in this study was voluntary. All respondents provided informed consent prior to participation, and ethical standards related to confidentiality, anonymity, and the right to withdraw were strictly followed.

2.3 Instrument

Academic anxiety was measured using the Academic Anxiety Scale developed by Cassidy [17]. The instrument consists of 11 items that assess academic worry, self-evaluative concerns, anticipatory stress, and anxiety-related reactions in academic contexts. Responses were recorded using a four-point Likert-type scale ranging from 1 (Not at all typical of me) to 4 (Very typical of me), with higher scores indicating greater levels of academic anxiety. No item recoding was required for either scale. To establish the internal consistency of the instrument within the local context, a pilot reliability analysis was conducted using responses from non-BEEd education students. The scale yielded a Cronbach's alpha coefficient of 0.76, indicating acceptable internal consistency for educational research.

2.4 Data Collection and Data Analysis

Data were collected during the academic term while the participants were actively enrolled in the practice teaching course. Academic anxiety was measured during the practicum period, specifically when student teachers were preparing for and, in some cases, had already completed their practice teaching demonstrations and classroom observations. This timing ensured that anxiety levels reflected authentic instructional and evaluative demands associated with pre-service teacher training. Prior to participation, respondents were informed of the study's purpose, potential benefits, and minimal risk. The principles of beneficence, voluntary participation, and the right to withdraw at any time without penalty were emphasized in the study. This study adhered to the institutional ethical guidelines for research involving human participants.

Academic anxiety scores were computed by simple summation of item responses, yielding total scores ranging from 11 to 44. Based on established cut-off scores, respondents were classified into four anxiety levels: not anxious (11–14), mild (15–20), moderate (21–29), and high (30–44) academic anxiety. All returned questionnaires were

complete and included in the final analyses. Descriptive statistics, including means, standard deviations, and frequency distributions, were computed to determine the overall levels of academic anxiety. To examine gender-based differences, the Mann–Whitney U test was employed, given the ordinal nature of the scale, unequal group sizes, and the likelihood of non-normal score distributions [12]. Statistical significance was set at $p < 0.05$. All statistical analyses were conducted using the JASP statistical software.

3. RESULTS AND DISCUSSIONS

3.1 Overall academic anxiety level.

Figure 1 shows the distribution of academic anxiety levels of BEEd pre-service teachers. More than half of the respondents (54.2%) were classified within the moderate anxiety range, while 25.0% exhibited high academic anxiety, and 20.8% fell within the low range. This pattern indicates that academic anxiety is a common experience during teacher preparation, with most students experiencing sustained but manageable anxiety levels. Consistent findings have been reported in teacher education contexts where academic workload and evaluative demands are salient [1, 15]. The predominance of moderate anxiety suggests a continuing cognitive burden that may influence students' engagement and performance during their professional preparation.

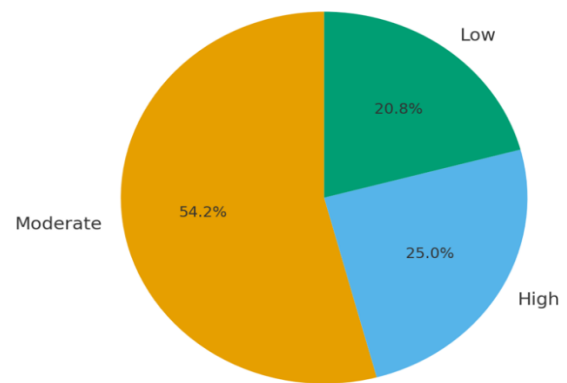


Figure 1. Overall academic anxiety levels among BEEd pre-service teachers

3.2 Item-level patterns of academic anxiety.

The item-level results are presented in Table 1. The highest overall mean scores were observed for indicators reflecting self-evaluative and anticipatory anxiety, specifically worry that one's best effort is not sufficient ($M = 2.56$, $SD = 0.68$), concern about completing assignments properly ($M = 2.52$, $SD = 0.68$), and frequent worry about upcoming academic demands ($M = 2.50$, $SD = 0.65$). Taken together, these results indicate that internal performance standards and anticipation of future tasks, rather than external instructional factors, dominate pre-service teachers' anxiety. In contrast, anxiety related to instructors yielded the lowest overall mean ($M = 2.13$, $SD = 0.76$), suggesting that teacher–student interactions were a less prominent source of anxiety during the practicum.

These item-level patterns are consistent with prior studies identifying self-evaluative worry as a core component of academic anxiety that interferes with working memory and

task execution [2, 13, 11]. Anxiety related to assignment accuracy similarly reflects findings that pre-service teachers often fear committing errors or failing to meet academic standards [15, 1]. Anticipatory anxiety has been widely documented as a predictor of stress and avoidance behaviors in academic contexts [10, 5]. Conversely, the relatively low anxiety associated with instructors supports the evidence that supportive instructional relationships can buffer academic stress [4, 3].

3.3 Gender differences in academic anxiety.

Table 2 summarizes the gender-based comparisons of academic anxiety. Female pre-service teachers reported lower overall anxiety (M = 2.26, SD = 0.42) than their male counterparts (M = 2.53, SD = 0.55). While female respondents were largely concentrated within the moderate anxiety category, a greater proportion of male respondents fell within the high-anxiety range, indicating heightened

worry and stress related to performance. While anxiety levels were categorized using established cutoff scores, mean values were also examined to facilitate gender-based statistical comparison. The Mann–Whitney U test was conducted to test whether these differences were statistically significant. As shown in Table 2, the results indicate a significant difference between male and female pre-service teachers (U = 131, p = 0.025), confirming that male respondents reported higher academic anxiety than their female counterparts. Within the context of elementary teacher education, male pre-service teachers, who often represent a numerical minority, may experience heightened visibility and performance pressure during practicum evaluations, potentially contributing to elevated anxiety. These findings align with research suggesting that gender-based anxiety patterns are shaped by socialized performance expectations and self-evaluative pressures [9, 10].

Table 2. Mann–Whitney U test results for gender differences in academic anxiety

Group	N	Mean	SD	U	p-value
Female	35	2.26	0.42	131	.025
Male	13	2.53	0.55		

Item - indicators	Male M (SD)	Female M (SD)	Total M (SD)
1. Worry that my best is not as expected	2.54 (0.66)	2.57 (0.70)	2.56 (0.68)
2. Put off school work due to stress	2.62 (1.04)	2.00 (0.59)	2.17 (0.78)
3. Worry about doing assignments properly	2.69 (0.63)	2.46 (0.70)	2.52 (0.68)
4. Less confident than classmates	2.23 (0.73)	2.34 (0.73)	2.31 (0.72)
5. Sense of dread in classrooms	2.46 (0.52)	2.29 (0.62)	2.33 (0.60)
6. Find instructors intimidating	2.38 (0.65)	2.03 (0.79)	2.13 (0.76)
7. Worry about what is next	2.62 (0.77)	2.46 (0.61)	2.50 (0.65)
8. Something about school scares me	2.54 (0.88)	2.09 (0.70)	2.21 (0.77)
9. Concerned about classmates' views	2.85 (0.80)	2.31 (0.90)	2.46 (0.90)
10. Feel sick for major assignments	2.23 (0.83)	2.03 (0.89)	2.08 (0.87)
11. Hard time handling responsibilities	2.69 (0.85)	2.29 (0.79)	2.40 (0.82)
Overall	2.53 (0.55)	2.26 (0.42)	2.33 (0.47)

3.4 Theoretical interpretation and contribution.

From a theoretical perspective, the findings are consistent with the Cognitive Appraisal Theory, which posits that anxiety emerges when individuals perceive academic demands as exceeding their available coping resources [15]. The prominence of self-evaluative worry and anticipatory stress suggests that pre-service teachers appraise practicum-related tasks as being highly demanding. The observed gender differences further align with the Social Cognitive Theory, wherein perceived self-efficacy plays a central role in emotional regulation; lower perceived competence may contribute to heightened academic worry and emotional strain [16]. These findings extend existing research by situating academic anxiety within the lived practicum experiences of Filipino BEEd pre-service teachers, thereby adding contextual evidence to international literature.

3.5 Limitations and scope of the study

Although these findings provide meaningful insights into academic anxiety during practice teaching, they should be interpreted within the context of the data collection. The study was conducted within a single teacher education institution and involved a relatively small sample with an

unequal gender distribution, reflective of elementary teacher education enrollment patterns. While these factors limit broad generalizability, the results offer context-specific empirical evidence of gender-based academic anxiety during practicum. Future research involving larger and more diverse samples across multiple institutions is recommended to validate and extend these findings.

4. CONCLUSIONS AND RECOMMENDATIONS

This study demonstrates that academic anxiety is a prevalent concern among BEEd pre-service teachers, with most respondents experiencing moderate anxiety and a substantial proportion reporting high anxiety during practice teaching. The findings indicate that anxiety experienced during the practicum is primarily driven by internal pressures, including self-evaluative worry, concerns about assignment accuracy, and anticipation of academic demands. These results suggest that pre-service teachers' anxiety is shaped more by internalized performance expectations than by external instructional factors.

The study further identified a statistically significant gender difference, with male pre-service teachers reporting higher

anxiety levels than their female counterparts, as indicated by the Mann–Whitney U-test ($U = 131$, $p = 0.025$). These differences suggest that academic anxiety may be experienced differently across genders within teacher education and that uniform support approaches may not sufficiently address the diverse psychosocial needs of pre-service teachers. By focusing on academic anxiety during the practicum phase, this study provides context-specific evidence of pre-service teacher well-being within Philippine teacher education.

Considering these findings, teacher education institutions are encouraged to recognize academic anxiety as an integral aspect of pre-service teacher preparation, particularly during practicum. Integrating mental health and resilience-building initiatives into practicum and related courses may equip pre-service teachers with effective coping and stress-management strategies. Clear communication of performance expectations strengthens academic advisement, and manageable workload structures may further reduce anxiety associated with evaluative demands.

Given the higher levels of anxiety observed among male pre-service teachers, the development of gender-responsive support mechanisms is recommended to address the differing experiences of academic pressure. Peer mentoring, reflective supervision, and supportive feedback practices may help foster confidence and emotional readiness among nurses. Future research involving larger and more diverse samples across multiple institutions is recommended to further examine academic anxiety patterns and to enhance the generalizability of the findings. Addressing academic anxiety during teacher preparation may ultimately contribute to the development of more confident and resilient educators as they transition into the teaching profession.

ACKNOWLEDGMENTS

The authors would like to express their sincere gratitude to J. H. Cerilles State College for granting permission and providing institutional support to conduct this research. The cooperation of the School of Teacher Education department and the participating pre-service teachers during the practice teaching period is gratefully acknowledged.

FUNDING INFORMATION

The authors declare that no funding was involved in this study.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

INFORMED CONSENT

Informed consent was obtained from all individuals included in this study.

ETHICAL APPROVAL

All procedures performed in studies involving human participants were conducted in accordance with the ethical standards of the institutional and/or national research committee, adhered to the principles of the Declaration of Helsinki, and received approval from the author's Institutional Review Board (IRB) or an equivalent ethics committee of the participating institution.

DATA AVAILABILITY

The data supporting the findings of this study are available from the first author [SCLS] upon reasonable request. The data, which contain information that could compromise the privacy of research participants, are not publicly available due to certain restrictions

REFERENCES

- [1] Morris, R., Perry, T., & Wardle, L. (2021). Formative assessment and feedback for learning in higher education: A systematic review. *Review of Education*, 9(3), e3292. <https://doi.org/10.1002/rev3.3292>
- [2] Cassady, J. C., & Johnson, R. E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology*, 27(2), 270–295. <https://doi.org/10.1006/ceps.2001.1094>
- [3] Murray-Harvey, R., Slee, P. T., Lawson, M. J., Silins, H., Banfield, G., & Russell, A. (2000). Under stress: The concerns and coping strategies of teacher education students. *European Journal of Teacher Education*, 23(1), 19–35. <https://doi.org/10.1080/713667267>
- [4] Herman, K. C., Hickmon-Rosa, J., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavior Interventions*, 20(2), 90–100. <https://doi.org/10.1177/1098300717732066>
- [5] Putwain, D. W. (2007). Researching academic stress and anxiety in students: Some methodological considerations. *British Educational Research Journal*, 33(2), 207–219. <https://doi.org/10.1080/01411920701208258>
- [6] Fives, H., Hamman, D., & Olivárez, A. (2007). Does burnout begin with student teaching? Analyzing efficacy, burnout, and support during the student-teaching semester. *Teaching and Teacher Education*, 23(6), 916–934. <https://doi.org/10.1016/j.tate.2006.03.013>
- [7] Rezazadeh, M., & Tavakoli, M. (2009). Investigating the relationship among test anxiety, gender, academic achievement, and years of study: A Case of Iranian EFL University Students. *English Language Teaching*, 2(4), 68–74. <https://doi.org/10.5539/elt.v2n4p68>
- [8] Chapell, M. S., Blanding, Z. B., Silverstein, M. E., Takahashi, M., Newman, B., Gubi, A., & McCann, N. (2005). Test anxiety and academic performance in undergraduate and graduate students. *Journal of Educational Psychology*, 97(2), 268–274. <https://doi.org/10.1037/0022-0663.97.2.268>
- [9] Putwain, D. W., Woods, K. A., & Symes, W. (2010). Personal and situational predictors of test anxiety in post-compulsory education. *British Journal of Educational Psychology*, 80(1), 137–160. <https://doi.org/10.1348/000709909X466082>
- [10] Zeidner, M. (1998). Test anxiety: The state of the art. *Springer*. <https://doi.org/10.1007/b109548>
- [11] Owens, M., Stevenson, J., Hadwin, J. A., & Norgate, R. (2012). Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. *School Psychology*

- International*, 33(4), 433–449.
<https://doi.org/10.1177/0143034311427433>
- [12] Putwain, D. W., & Daly, A. L. (2014). Test anxiety prevalence and gender differences in a sample of English secondary school students. *Educational Studies*, 40(5), 554–570. <https://doi.org/10.1080/03055698.2014.953914>
- [13] Putwain, D. W., Schmitz, E. A., Wood, P., & Pekrun, R. (2021). The role of achievement emotions in primary school mathematics: Control-value antecedents and achievement outcomes. *British Journal of Educational Psychology*, 91(1), 347–367. <https://doi.org/10.1111/bjep.12367>
- [14] Birchinall, L., Spendlove, D., & Buck, R. (2019). In the moment: Does mindfulness hold the key to improving the resilience and well-being of pre-service teachers? *Teaching and Teacher Education*, 86, 102919. <https://doi.org/10.1016/j.tate.2019.102919>
- [15] Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. Springer Publishing Company.
- [16] Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice-Hall.
- [17] Cassady, J. C. (2020). Academic Anxiety Scale. Academic Anxiety Resource Center, Ball State University. <https://sites.bsu.edu/aarc/research/academic-anxiety-scale/>