

Shaping future educators: Exploring teaching anxiety among pre-service teachers as insights for intervention and competence development



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Abstract This study aimed to explore teaching anxiety among preservice teachers in a Philippine context, particularly in a leading State University in Southern Mindanao, and examine the interrelationships between various anxiety categories. A quantitative research design using a descriptive correlation approach was employed to assess the anxiety levels of 205 preservice teachers, selected through simple random sampling. The study utilized an adapted Teaching Anxiety Scale as the research instrument to measure different types of teaching anxiety, including teacher self-efficacy, classroom management, public speaking, instructional uncertainty, and teacher-student relationship anxiety. Descriptive and inferential statistics, including Spearman's rho correlation, were used to analyze the data. The results revealed moderate levels of anxiety across all anxiety categories, with the strongest correlations observed between teacher self-efficacy and professional identity anxiety, classroom management anxiety, and instructional uncertainty. These findings suggest that teaching anxiety is a multifaceted issue, with certain anxiety factors deeply interconnected, influencing preservice teachers' development and confidence. The implications of these results emphasize the need for a more nuanced understanding of teaching anxiety and its interconnected nature. It is essential for teacher education programs to recognize and address these varying aspects of anxiety to enhance the professional growth of preservice teachers. In conclusion, the study highlights the importance of early intervention in managing teaching anxiety and the need for targeted support systems to foster the confidence and competence of future educators.

Keywords: anxiety dimensions, classroom preparedness, teachers in training, teacher confidence, teaching readiness

1. Introduction

Teaching anxiety refers to the nervousness, fear, or stress that educators experience in response to various aspects of the teaching profession, including public speaking, classroom management, and student interactions. It is a common phenomenon, particularly among preservice teachers, who may face uncertainty about their teaching abilities and concerns about their competence in real-world classroom settings (Aydin, 2021). Teaching anxiety can manifest in different forms, such as a fear of judgment, performance-related stress, or doubts about one's instructional effectiveness (Aldubaikhi, 2023). This anxiety, if unaddressed, may impact both the teacher's performance and the learning environment, potentially hindering professional development and teaching efficacy (Bantilan et al., 2024).

Pre-service teachers often face challenges that contribute to teaching anxiety, affecting their confidence and growth. One key issue is the fear of classroom management, with many feeling unprepared to handle disruptive behavior (Gorospe, 2022). The pressure to perform well during practicum placements and the fear of negative judgment from students, parents, or peers also increase anxiety (Li et al., 2023). Additionally, the transition from theoretical learning to practical application in real classrooms can overwhelm preservice teachers, heightening their anxiety (Kenoh, 2021).

Several studies have explored the nature of teaching anxiety, highlighting its impact on both preservice and inservice teachers. Teaching anxiety is a prevalent issue among preservice teachers, often stemming from concerns about classroom management, student engagement, and self-perceived competence (Lauermaann & ten Hagen, 2021). Teaching anxiety correlates with lower self-efficacy, with those who experience higher anxiety levels reporting lower confidence in their teaching abilities (Özben & Kilicoglu, 2021). The role of classroom observations in exacerbating anxiety has also been emphasized, with many preservice teachers struggling with perceived judgment from mentors and supervisors, leading to increased stress (Nguyen et al., 2024). Early interventions, such as mentoring and support networks, are key to reducing anxiety and enhancing teaching competence (Diab & Green, 2024). These studies underscore the need to address teaching anxiety to support the development of confident and effective educators.

Despite numerous studies on teaching anxiety conducted globally, there remains a significant gap in the literature regarding teaching anxiety among preservice teachers in the Philippines, particularly in Mindanao. While existing research has



provided valuable insights into the factors contributing to teaching anxiety in various educational contexts, the unique challenges and experiences of preservice teachers in the Philippine setting have yet to be comprehensively explored. This study seeks to answer the general research question: How does teaching anxiety manifest among preservice teachers in Mindanao, and what interventions can be implemented to address it? The primary purpose of this study is to examine the factors contributing to teaching anxiety among preservice teachers in Mindanao, identify its impact on their teaching competence and well-being, and explore possible strategies for intervention to help foster their professional development and confidence.

This research is crucial for preservice teachers in Mindanao as it sheds light on the specific factors contributing to their teaching anxiety, offering valuable insights for developing targeted interventions that can enhance their professional growth and self-efficacy. By addressing this gap in the existing literature, this study contributes to the broader body of knowledge on teaching anxiety, providing a foundation for future research in the Philippine context. Additionally, the findings will be beneficial to the wider academic community, as they highlight the importance of integrating emotional and psychological support within teacher preparation programs to cultivate more confident and effective educators.

2. Materials and Methods

2.1. Research design

This research used a quantitative research design, specifically a descriptive correlation approach, to examine the interrelationships between different categories of teaching anxiety among preservice teachers. Quantitative research is a systematic investigation that focuses on gathering numerical data and analyzing it to uncover patterns and relationships (Tagare et al., 2025). Descriptive correlation, on the other hand, aims to describe the nature of the relationship between two or more variables without manipulating them (Siedlecki, 2020). This approach is particularly appropriate for this study as it allows for the identification and measurement of teaching anxiety in its various forms and examines how these categories are interrelated, providing valuable insights into the factors that influence preservice teachers' anxiety levels.

2.2. Research respondents and sampling

In this study, 205 respondents were selected using simple random sampling. Simple random sampling is a technique where each individual in the population has an equal chance of being selected, ensuring unbiased representation (Noor et al., 2022). This method is the most appropriate for this study as it allows for a fair and objective selection of participants, ensuring that the sample accurately reflects the broader population of preservice teachers and minimizing selection bias. The use of simple random sampling enhances the generalizability and validity of the study's findings.

2.3. Research instrument

This research adapted the Teaching Anxiety Scale to measure the level of teaching anxiety among preservice teachers. The scale consists of multiple items that assess various aspects of teaching anxiety, including classroom management, instructional effectiveness, and self-efficacy. Scale has demonstrated strong reliability, with a Cronbach's alpha coefficient ranging from 0.87 to 0.92 in previous studies, indicating high internal consistency. By utilizing this validated instrument, the study ensures accurate and reliable measurement of teaching anxiety among the participants.

2.4. Statistical analysis

This research employed both descriptive and inferential statistics, including composite mean and grand mean, to describe the levels of teaching anxiety among preservice teachers. Spearman's Rho Correlation Coefficient was used to test the relationships between different categories of teaching anxiety. This non-parametric test is ideal for assessing the strength and direction of the relationship between ordinal or non-normally distributed variables. Spearman's Rho was chosen as the most appropriate method due to its ability to handle ranked data and its robustness when the assumptions of normality are not met.

3. Results and Discussion

Figure 1 presents the distribution of teacher anxiety levels among respondents, considering five main categories. For interpretation purposes, the following ranges were adopted: scores between 4.00 and 3.50 indicate mild anxiety, between 3.49 and 2.50 indicate moderate anxiety, between 2.49 and 1.50 reflect high anxiety, and between 1.49 and 1.00 characterize severe anxiety.

Table 1 illustrates the interrelationship of teaching anxiety across the various areas among the respondents. It highlights the correlations between Teacher Self-Efficacy and Professional Identity Anxiety, Classroom Management and Instructional Effectiveness Anxiety, Public Speaking and Social Evaluation Anxiety, Instructional Uncertainty and Pedagogical Self-Doubt, and Teacher-Student Relationship and Rapport Anxiety. The table provides insight into how these different anxiety factors are interconnected and contribute to the overall experience of teaching anxiety among preservice teachers.

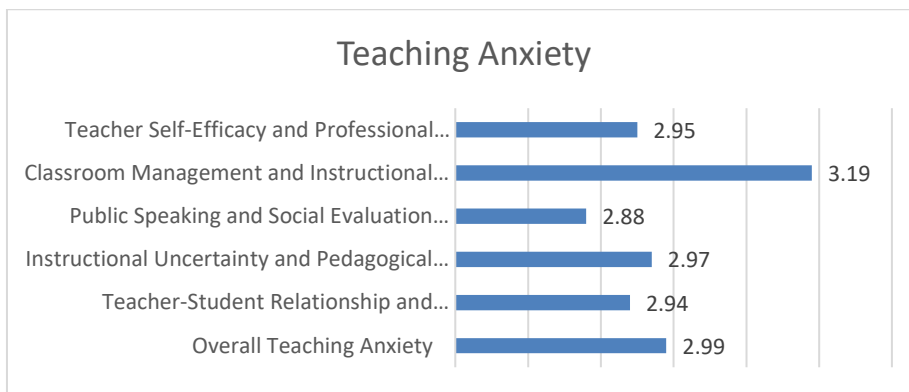


Figure 1 Teaching anxiety among the respondents.

Table 1 Interrelationship of teaching anxiety among the respondents.

	Teacher Self-Efficacy and Professional Identity Anxiety	Classroom Management and Instructional Effectiveness Anxiety	Public Speaking and Social Evaluation Anxiety	Instructional Uncertainty and Pedagogical Self-Doubt Anxiety
Classroom Management and Instructional Effectiveness Anxiety	0.700**			
Public Speaking and Social Evaluation Anxiety	0.690**	0.684**		
Instructional Uncertainty and Pedagogical Self-Doubt Anxiety	0.725**	0.711**	0.797**	
Teacher-Student Relationship and Rapport Anxiety	0.702**	0.623**	0.716**	0.730**

3.1. Respondents' teaching anxiety

Figure In terms of Teacher Self-Efficacy and Professional Identity Anxiety, it garnered a composite mean of 2.95, verbally interpreted as Moderate Teaching Anxiety. This means that preservice teachers experience occasional doubts about their abilities and their sense of professional identity as future educators. This implies that while they demonstrate a reasonable level of confidence, there remain instances of uncertainty that could affect their perceptions of competence and readiness to teach effectively.

The findings align with existing literature that highlights self-efficacy as a significant factor influencing teaching anxiety. Moderate anxiety in self-efficacy often stems from the transition between theory and practice in teacher preparation (Gorospe, 2022). Concerns about professional identity are common among preservice teachers who are still navigating their roles in the educational field (Cai et al., 2022). Preservice teachers with moderate anxiety tend to be in the process of building confidence in their teaching competencies, which is typical in the early stages of their careers (Tagare Vergara, et al., 2025).

In terms of Classroom Management and Instructional Effectiveness Anxiety, it obtained a composite mean of 3.19, which corresponds to a verbal interpretation of Moderate Teaching Anxiety. This means that preservice teachers often experience unease about their ability to manage classrooms effectively and deliver instruction confidently. This implies that while they may have foundational knowledge and skills, they still face challenges in handling real-life teaching scenarios, which can affect their overall confidence in maintaining a conducive learning environment.

The findings are consistent with previous studies that emphasize the significance of classroom management in teaching anxiety. Moderate anxiety in this area often arises from fears of losing control over student behavior (Wettstein et al., 2023). Instructional effectiveness is a common concern for preservice teachers, particularly during practicum placements where they are evaluated on their teaching performance (Brown et al., 2021). Many preservice teachers feel overwhelmed by the dual demands of managing diverse classrooms and ensuring instructional quality (Dalipe et al., 2025).

In terms of Public Speaking and Social Evaluation Anxiety, it got a composite mean of 2.88 with a verbal interpretation of Moderate Teaching Anxiety. This means that respondents experience a moderate level of nervousness and concern when speaking in public or being evaluated in social contexts. This implies that while most preservice teachers may feel relatively confident, they still experience anxiety related to their perceived performance and the judgments of others, particularly in teaching scenarios that require strong communication skills. Such anxiety can influence their ability to effectively deliver lessons and interact with students.



The findings are consistent with studies that emphasize the challenges of public speaking and evaluation in teaching. Nguyen et al. (2024) noted that preservice teachers often feel heightened anxiety when delivering lessons due to fears of being judged by peers and mentors. Archbell & Coplan (2022) found that social evaluation is a critical factor in teaching anxiety, particularly for individuals still developing their communication skills. Similarly, Kenoh (2021) highlighted that public speaking anxiety is a common concern among preservice teachers as they transition from academic learning to practical teaching roles.

In terms of Instructional Uncertainty and Pedagogical Self-Doubt, it got a composite mean of 2.97 with a verbal interpretation of Moderate Teaching Anxiety. This means that respondents experience moderate unease regarding their instructional approaches and confidence in delivering lessons effectively. This implies that while they possess a foundational understanding of pedagogy, uncertainties about the appropriateness and impact of their teaching methods persist, reflecting their developmental stage as preservice teachers.

The findings align with previous studies that emphasize the prevalence of self-doubt among preservice teachers. Starrett et al. (2023) highlighted that instructional uncertainty often arises when theoretical knowledge is applied in practical settings. Similarly, Gray et al. (2017) reported that preservice teachers commonly experience pedagogical self-doubt as they strive to balance innovative teaching methods with curriculum standards. Baepler (2021) also noted that moderate anxiety in instructional tasks is linked to the pressure of meeting diverse student needs in real classroom environments.

In terms of Teacher-Student Relationship and Rapport Anxiety, it got a composite mean of 2.94 with a verbal interpretation of Moderate Teaching Anxiety. This means that respondents experience moderate concerns about building and maintaining positive relationships with their students. This implies that while they recognize the importance of rapport in fostering effective learning environments, they may still feel apprehensive about their ability to connect with students and manage interpersonal dynamics in the classroom.

The findings align with previous studies emphasizing the challenges of teacher-student relationships as a source of anxiety. Miller et al. (2023) noted that preservice teachers often worry about earning students' trust and maintaining authority in the classroom. Simkhada et al. (2025) found that moderate anxiety in building relationships is common as preservice teachers navigate the balance between being approachable and maintaining professional boundaries. Similarly, Amerstorfer & Freiin von Münster-Kistner (2021) reported that establishing rapport can be daunting, especially for teachers in their early stages of practice, where confidence in managing student behavior is still developing.

Overall, across all the categories, it got a grand mean of 2.99 with a verbal interpretation of Moderate Teaching Anxiety. This means that preservice teachers experience a general sense of moderate anxiety related to various aspects of their teaching practice. This implies that while they may feel relatively confident in some areas, there is still a significant level of apprehension across different dimensions of teaching, suggesting a need for support in managing these anxieties.

These findings are consistent with previous research on teaching anxiety among preservice teachers. Hao & Lee (2016) observed that moderate anxiety is prevalent across several teaching domains, with preservice teachers often feeling uncertain about various aspects of their role. Zakaria et al. (2024) highlighted that such anxiety is particularly pronounced during practicum experiences, where teachers are expected to apply theoretical knowledge in real classroom settings. Ji et al. (2022) also noted that while anxiety levels may vary, most preservice teachers report moderate levels of anxiety, reflecting their early-stage development and lack of extensive teaching experience.

3.2. Interrelationship of teaching anxiety among the respondents

The results of the correlation analysis indicate several noteworthy relationships between the categories of teaching anxiety. The strongest correlation was between Teacher Self-Efficacy and Professional Identity Anxiety and Instructional Uncertainty and Pedagogical Self-Doubt ($r = .725$), followed closely by the correlation between Teacher Self-Efficacy and Professional Identity Anxiety and Classroom Management and Instructional Effectiveness Anxiety ($r = .700$). These high values suggest a strong interrelationship between a teacher's self-efficacy and their anxieties regarding classroom management and instructional uncertainty. On the other hand, the weakest correlation was between Classroom Management and Instructional Effectiveness Anxiety and Teacher-Student Relationship and Rapport Anxiety ($r = .623$). This implies that while there is a moderate relationship between these two areas, it is not as pronounced as the other pairings.

These findings align with other studies on teaching anxiety. Karakose et al. (2023) found a significant relationship between self-efficacy and classroom management anxiety. Deng & Liu (2025) also highlighted that anxiety related to pedagogical practices often correlates with self-efficacy, corroborating the link between instructional uncertainty and teacher self-efficacy. Nioda & Tagare (2024) observed similar patterns, where self-perceived competence and classroom management anxiety are closely intertwined in preservice teachers, further validating the results.

The results of the correlation analysis suggest that addressing teacher self-efficacy, classroom management, and instructional uncertainty can significantly impact teaching anxiety, especially in the early stages of a teacher's career. Policymakers should consider these findings when designing teacher preparation programs to foster stronger self-confidence and competency in managing classrooms and navigating instructional challenges. Strengthening teacher preparation in these areas can mitigate the high levels of anxiety that may undermine teaching effectiveness, leading to improved student outcomes (Poblador et al., 2023).

In practice, educators should be supported through continuous professional development that focuses on enhancing self-efficacy and pedagogical confidence. Training programs that emphasize the interrelation between anxiety and teaching competencies can provide teachers with the tools to manage anxiety, improving both their professional identity and classroom effectiveness (Magen-Nagar & Steinberger, 2022; Fernández-Batanero et al., 2021). These measures will create a more supportive teaching environment and better equip teachers to manage the demands of the profession.

4. Conclusion

The findings of this research indicate that teaching anxiety among the respondents falls within a moderate range across various anxiety categories. These results reflect the complexity of the challenges that preservice teachers face as they transition from academic learning to the realities of teaching. It is evident that while these individuals exhibit certain levels of anxiety, they are also at a critical stage in developing the necessary skills and confidence to succeed in the classroom. This study highlights the pervasive nature of teaching anxiety and its potential to affect teachers' performance and well-being during their professional development.

The interrelationship among the various dimensions of teaching anxiety shows that different anxiety factors are interconnected, influencing one another in significant ways. The correlations observed between teacher self-efficacy, classroom management, and instructional uncertainty underscore how multiple areas of concern combine to shape the overall teaching experience. These interconnected anxieties create a complex web of challenges that teachers must navigate, with one anxiety category often exacerbating another. Understanding these interrelations is crucial for providing targeted support that addresses the various aspects of teaching anxiety, ultimately contributing to the development of more confident and competent educators.

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Ethical Considerations

This research adhered to strict ethical guidelines to ensure the protection of respondents' rights and well-being. Prior to data collection, informed consent was obtained from all respondents, ensuring that they understood the purpose of the study, the voluntary nature of participation, and their right to withdraw at any time without penalty. The confidentiality and anonymity of the participants were safeguarded by securely storing the data and reporting findings in aggregate form, without identifying individual responses. Additionally, the study was conducted in full compliance with ethical standards, ensuring that no harm or distress was caused to the respondents, and that the research adhered to the ethical principles of respect, integrity, and fairness.

Conflict of Interest

The authors declare that they have no conflicts of interest.

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References

- Aldubaikhi, S. A. (2023). Influence of teacher/instructor foreign language anxiety reduction strategies on students' foreign language anxiety: The case of Saudi students' English language learning in Saudi Arabia. *Eurasian Journal of Applied Linguistics*, 9(2), 33–44.
- Amerstorfer, C. M., & Freiin von Münster-Kistner, C. (2021). Student perceptions of academic engagement and student-teacher relationships in problem-based learning. *Frontiers in Psychology*, 12, 713057. <https://doi.org/10.3389/fpsyg.2021.713057>
- Archbell, K. A., & Coplan, R. J. (2022). Too anxious to talk: Social anxiety, academic communication, and students' experiences in higher education. *Journal of Emotional and Behavioral Disorders*, 30(4), 273–286.
- Aydin, S. (2021). A systematic review of research on teaching anxiety. *International Online Journal of Education and Teaching*, 8(2), 730–761.
- Baepler, P. (2021). Student anxiety in active learning classrooms: Apprehensions and acceptance of formal learning environments. *Journal of Learning Spaces*, 10(2).
- Bantilan, V. M., Valera, J. S., Lazaro, N. J., & Limos-Galay, J. A. (2024). Teachers' anxiety and self-efficacy as correlates to their performance in San Jose North District. *International Journal of Research*, 8(2), 97–115.
- Brown, A. L., Myers, J., & Collins, D. (2021). How pre-service teachers' sense of teaching efficacy and preparedness to teach impact performance during student teaching. *Educational Studies*, 47(1), 38–58.
- Cai, Z., Zhu, J., & Tian, S. (2022). Preservice teachers' teaching internship affects professional identity: Self-efficacy and learning engagement as mediators. *Frontiers in Psychology*, 13, 1070763.
- Dalipe, M. A. R., Rosario, M. A. B., Reyes, M. D. L., Poblador, S. A. C., Kee, J. C., Dumagalagan, N. L., Dacanay, R., San Pedro, M., Villarta, C. W., Mangubat, C. M., Java, V., Elumaring, J., & Tagare, R. J. (2025). Active lives, fulfilled needs: Physical activity and the triad of autonomy, competence, and relatedness among

- Filipino university students. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 11(3), 1–22. <https://doi.org/10.17979/sportis.2025.11.3.11655>
- Deng, Y., & Liu, H. (2025). To overcome test anxiety in online assessment: Unpacking the mediator roles of techno competencies, teacher support, self-efficacy, and autonomy. *BMC Psychology*, 13(1), 192.
- Diab, A., & Green, E. (2024). Cultivating resilience and success: Support systems for novice teachers in diverse contexts. *Education Sciences*, 14(7), 711.
- Fernández-Batanero, J.-M., Román-Graván, P., Reyes-Rebollo, M.-M., & Montenegro-Rueda, M. (2021). Impact of educational technology on teacher stress and anxiety: A literature review. *International Journal of Environmental Research and Public Health*, 18(2), 548.
- Gorospe, J. D. (2022). Pre-service teachers' teaching anxiety, teaching self-efficacy, and problems encountered during the practice teaching course. *Journal of Education and Learning*, 11(4), 84–91.
- Gray, C., Wright, P., & Pascoe, R. (2017). There's a lot to learn about being a drama teacher: Pre-service drama teachers' experience of stress and vulnerability during an extended practicum. *Teaching and Teacher Education*, 67, 270–277.
- Hao, Y., & Lee, K. S. (2016). Teaching in flipped classrooms: Exploring pre-service teachers' concerns. *Computers in Human Behavior*, 57, 250–260.
- Ji, Y., Oubibi, M., Chen, S., Yin, Y., & Zhou, Y. (2022). Pre-service teachers' emotional experience: Characteristics, dynamics and sources amid the teaching practicum. *Frontiers in Psychology*, 13, 968513.
- Karakose, T., Polat, H., Yirci, R., Tülübaş, T., Papadakis, S., Ozdemir, T. Y., & Demirkol, M. (2023). Assessment of the relationships between prospective mathematics teachers' classroom management anxiety, academic self-efficacy beliefs, academic amotivation and attitudes toward the teaching profession using structural equation modelling. *Mathematics*, 11(2), 449.
- Kenoh, A. R. I. (2021). A qualitative study on speaking anxiety among pre-service teachers. *Journal of Learning and Development Studies*, 1(1), 34–39.
- Lauermann, F., & ten Hagen, I. (2021). Do teachers' perceived teaching competence and self-efficacy affect students' academic outcomes? A closer look at student-reported classroom processes and outcomes. *Educational Psychologist*, 56(4), 265–282. <https://doi.org/10.1080/00461520.2021.1991355>
- Li, Q., Xie, Z., & Zeng, G. (2023). The influence of teaching practicum on foreign language teaching anxiety among pre-service EFL teachers. *Sage Open*, 13(1), 21582440221149004.
- Magen-Nagar, N., & Steinberger, P. (2022). Developing teachers' professional identity through conflict simulations. *Teaching Education*, 33(1), 102–122.
- Miller, K., Flint Stipp, K., & Bazemore-Bertrand, S. (2023). Student trauma, trauma-informed teaching, and self-care in preservice teachers' clinical experiences. *Teacher Development*, 27(1), 55–74.
- Nguyen, H. T. M., Tran, A., & Grassick, L. (2024). Collaborative peer mentoring in a practicum: An innovative strategy to cope with teaching anxiety. *RELC Journal*. Advance online publication. <https://doi.org/10.1177/00336882241302841>
- Nioda, A. J. B., & Tagare, R. L. (2024). The experiences of non-physical education generalist teachers in implementing PE in the primary grades: Implications for capability development initiatives. *International Electronic Journal of Elementary Education*, 16(3), 325–335. <https://doi.org/10.26822/iejee.2024.334>
- Noor, S., Tajik, O., & Golzar, J. (2022). Simple random sampling. *International Journal of Education & Language Studies*, 1(2), 78–82.
- Özben, A., & Kilicoglu, E. (2021). The development process of classroom teacher candidates for teaching mathematics: Self-efficacy, anxiety and professional belief. *Participatory Educational Research*, 8(2), 129–146.
- Poblador, S. A., Lagunero-Tagare, R. J., & Tagare, R. L. (2023). Exploring the positive experiences of senior high school teachers in teaching the sports track during the K-12 transition years in Southern Philippines. *Research in Education and Learning Innovation Archives*, 31, 17. <https://doi.org/10.7203/realia.31.25888>
- Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), 8–12. <https://doi.org/10.1097/NUR.0000000000000493>
- Simkhada, D. R., Dahal, N., Pant, B. P., Luitel, L., & Manandhar, N. K. (2025). Stories of stress: Unveiling professional anxiety in mathematics teaching. *Frontiers in Education*, 10, 1553932.
- Starrett, E., Firetto, C. M., & Jordan, M. E. (2023). Navigating sources of teacher uncertainty: Exploring teachers' collaborative discourse when learning a new instructional approach. *Classroom Discourse*, 14(1), 45–68.
- Tagare, R. L., Saroca, D. B., & Aguinaldo, J. C. (2025). Investigating the local culture and characteristics of Gen Zs in rural communities: Insights in improving students' physical education experience. *Physical Culture and Sport*, 107(1), 48–59.
- Tagare, R. L., Vergara, L. A., Porto, J. A., Hernani, M. R. A., & Gazali, N. (2025). Students' engagement in Philippine tertiary PE program: A path for enhancing experience and curriculum development. *International Journal of Evaluation and Research in Education*, 14(4), 3249–3259. <https://doi.org/10.11591/ijere.v14i4.33207>
- Wettstein, A., Jenni, G., Schneider, S., Kühne, F., Grosse Holtforth, M., & La Marca, R. (2023). Teachers' perception of aggressive student behavior through the lens of chronic worry and resignation, and its association with psychophysiological stress: An observational study. *Social Psychology of Education*, 26(4), 1181–1200.
- Zakaria, M. K., Embong, A. M., Shun, H. J., Zaini, M. M. M., binti Ayub, A., Wahab, N. A. A., Wan, C. W. I. R. C., Kassim, W. Z. W., Salaebing, M., & bin Sabdin, A. J. (2024). Experiencing the pre-service teachers' ideas and thoughts during practicum: Quantitative and qualitative approaches. *English Education Journal*, 15(2), 58–76.