

Gender-Responsive Teaching Practices on Students' Engagement and Learning Outcomes: Basis for Instructional Design

Ernie P. Morales¹

College of Liberal Arts, Zamboanga State College of Marine Sciences and Technology, Zamboanga City, Philippines

¹ORCID ID No.: 869-877-869-877

*Corresponding Author: Ernie P. Morales¹
moralesding1984@gmail.com

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ABSTRACT:

This study investigates the effect of gender-responsive teaching practices (GRTP) on student engagement and learning outcomes at Zamboanga State College of Marine Sciences and Technology (ZSCMST). The research addresses gender disparities in education, aiming to create inclusive environments where all students thrive. It examines how teaching methods, classroom settings, and teacher attitudes influence student participation and academic success. Using a quantitative, descriptive-correlational design, the study surveyed 43 College of Education and Liberal Arts (CELA) teachers and 433 students. The questionnaire assessed GRTP implementation, student engagement levels (active participation, attention, interest), and learning outcomes (knowledge, skills, attitudes). Data analysis included means, ANOVA, and Pearson correlation to determine relationships and differences across demographic groups. The results indicated that both students and teachers perceived GRTP as "Very Extensive." A strong positive correlation was found between GRTP and student engagement and learning outcomes. However, there were significant differences based on the students' major or program, and the number of years a teacher has been teaching significantly influences learning outcomes. The study concludes that GRTP positively impacts student engagement and learning outcomes. It suggests targeted interventions, including professional development for teachers, curriculum review, and strategies to improve student attention and participation. These findings underscore the importance of creating equitable and inclusive learning environments tailored to specific disciplines and students' needs to enhance educational outcomes.

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Introduction

Globally, there has been significant progress in expanding access to education and advancing

gender equality, aligned with Sustainable Development Goals 4 and 5. Research has shifted from simply documenting gender gaps in

participation and achievement to examining how classroom practices, curricula, and teacher biases shape learning experiences. Recent studies increasingly highlight the need for inclusive pedagogy that accounts for diverse learning needs and intersecting identities. At the institutional level, Zamboanga State College of Marine Sciences and Technology (ZSCMST) has adopted Gender and Development (GAD) frameworks to guide more equitable education, yet the actual implementation and impact of these policies on the ground require empirical verification.

Research Problem and Importance

Despite improved access to education, gender gaps in academic performance, participation, and confidence persist. These gaps cannot be explained by biology or socioeconomic status alone. Unintentional biases, stereotyped curricula, and traditional teaching methods often disadvantage certain groups and reinforce inequalities. While many national and international studies confirm the benefits of gender-sensitive instruction, there is limited research specific to the local context of ZSCMST and similar institutions in the region. Without context-specific data, it is difficult to tailor strategies effectively or confirm whether existing policies translate into actual improvements in student success.

This study is important because it bridges that gap by providing local evidence on how gender-responsive practices operate in this setting. It directly links the implementation of GAD policies to measurable student outcomes, making the findings relevant and actionable.

Benefits of the Study

For Teachers: It provides clear feedback on current practices, identifies areas for improvement, and offers evidence-based strategies to create more inclusive classrooms, reduce bias, and increase student participation.

For Students: It helps create a safer, more respectful, and supportive learning environment where every learner feels valued, heard, and

motivated to participate regardless of gender identity.

For Educational Institutions: It serves as baseline data to evaluate the effectiveness of GAD programs, improve instructional policies, allocate resources efficiently, and develop a more responsive curriculum aligned with national and international standards.

Objectives of the Study

The main objective of this study is to determine the extent of gender-responsive teaching practices (GRTP) and their effect on student engagement and learning outcomes. Specifically, it aims to:

1. Determine the extent of gender-responsive teaching practices in terms of classroom environment, teaching strategies, and teacher attitudes and beliefs.
2. Assess the level of students' engagement in terms of active participation, attention and focus, and interest and curiosity.
3. Measure the level of students' learning outcomes in terms of knowledge, skills, and attitudes.
4. Analyze the significant relationship between gender-responsive teaching practices and student engagement and learning outcomes.
5. Examine the significant differences in the effect of GRTP when respondents are grouped according to gender, age, civil status, field of specialization, and teaching experience.
6. Propose an instructional design based on the findings to enhance the teaching-learning process.

Methodology

Research Design

This study used a quantitative descriptive-correlational design. This approach collects and analyzes numerical data to describe current conditions and examine relationships between variables without altering them (Garcia et al., 2020; Canuto & Espique, 2023). The descriptive component outlines the extent of GRTP and its

effects, while the correlational component measures the strength and direction of associations, though it does not prove strict cause-and-effect (Limberg et al., 2021; Shehhi & Yaacob, 2022). This design is suitable for understanding the current status and identifying meaningful patterns.

Locale of the Study

The study was conducted at Zamboanga State College of Marine Sciences and Technology (ZSCMST), located in Fort Pilar Shrine, Zamboanga City. Established in 1956 and converted into a state college in 1986, it offers a wide range of programs including teacher education. The College of Education and Liberal Arts (CELA) was selected as the locale because it is the primary unit responsible for training future

educators and implementing inclusive education policies, providing a relevant setting for this research during the School Year 2024–2025.

Population and Sampling Design

For teachers: Total enumeration was used, including all 43 faculty members in CELA to ensure full representation, given the small population size.

For students: The total population was 1,515. Using Slovin's Formula with a 5% margin of error, the required sample size was 433. Stratified random sampling was employed to ensure proportional representation from each program and year level, improving the reliability of the results.

Table 1 Demographic Profile of Student-Respondents (n = 433)

Profile	Category	Frequency	Percentage
Gender	Female	311	71.8%
	Male	112	25.9%
	Binary	3	0.7%
	Prefer not to say	7	1.6%
Age	Below 18	4	0.9%
	18 – 22	357	82.4%
	23 – 25	49	11.3%
	26 – 30	15	3.5%
	31 and above	8	1.8%
Civil Status	Single	427	98.6%
	Married	6	1.4%

Profile	Category	Frequency	Percentage
Major/Program	English	92	21.2%
	Filipino	120	27.7%
	Mathematics	34	7.9%
	Science	23	5.3%
	BTLED HE	35	8.1%
	BTLED ICT	38	8.8%
	BTLED AFA	54	12.5%
	BAELS	14	3.2%
	BATSIFIL	8	1.8%
	PEC	15	3.5%
Year Level	2nd Year	174	40.2%
	3rd Year	175	40.4%
	4th Year	69	15.9%
	PEC	15	3.5%

Interpretation

The student sample is dominated by female learners aged 18–22, mostly single, and enrolled

in language and education-related courses. This profile reflects the typical enrollment trends in teacher education programs in the region.

Table 2 Demographic Profile of Teacher-Respondents (n = 43)

Profile	Category	Frequency	Percentage
Gender	Female	24	55.8%

Profile	Category	Frequency	Percentage
	Male	19	44.2%
Age	25 – 30	6	14.0%
	31 – 35	10	23.3%
	36 – 39	3	7.0%
	40 and above	24	55.8%
Civil Status	Single	18	41.9%
	Married	20	46.5%
	Separated	2	4.7%
	Widowed	3	7.0%
Field of Specialization	English	8	18.6%
	Filipino	8	18.6%
	Mathematics	3	7.0%
	Science	9	20.9%
	Social Sciences	4	9.3%
	TVL/BTLED	8	18.6%
	Others	3	7.0%
Years in Teaching	Below 5 years	6	14.0%
	6 – 8 years	5	11.6%
	9 – 10 years	7	16.3%
	11 – 12 years	1	2.3%

Profile	Category	Frequency	Percentage
	13 years and above	24	55.8%

Interpretation

The teaching staff is gender-balanced, mostly experienced (over half with 13+ years of service), and covers a wide range of disciplines, ensuring diverse perspectives for the study.

Research Instrument

The questionnaire was adapted and modified from Muasya (2021). It was validated by three experts in education and GAD, resulting in a Content Validity Index (CVI) of 0.92. Reliability was tested using Cronbach's Alpha, yielding $\alpha = 0.89$, indicating high internal consistency. The instrument has three parts:

Part I: Assesses GRTP across classroom environment, teaching strategies, and teacher attitudes.

Part II: Measures student engagement.

Part III: Evaluates learning outcomes.

Data Gathering Procedure

Approval was secured from the college administration. Informed consent was obtained from all participants. Surveys were distributed in print and online formats for accessibility. Responses were anonymized, and data were stored securely for analysis.

Statistical Tools

For the statistical tools used in this study, the Weighted Mean was applied to determine levels of implementation, engagement, and outcomes. The One-Way ANOVA was utilized to test differences between groups. Meanwhile, the Pearson Product-Moment Correlation was employed to measure relationships between variables. Finally, the Significance Level was set at $p < 0.05$.

Results and Discussion

Extent of Gender-Responsive Teaching Practices

Table 3 Summary of GRTP Implementation

Dimensions	Students		Teachers	
	Mean	Remarks	Mean	Remarks
Classroom Environment	4.34	Very Extensive	4.19	Very Extensive
Teaching Strategies	4.39	Very Extensive	4.33	Very Extensive
Teacher Attitudes & Beliefs	4.35	Very Extensive	4.33	Very Extensive
Overall Grand Mean	4.36	Very Extensive	4.28	Very Extensive

Legend: 1.00–1.50 = No Extent; 1.51–2.50 = Low Extent; 2.51–3.50 = Moderately Extensive; 3.51–4.50 = Very Extensive; 4.51–5.00 = Very Much Extensive

Interpretation & Meaning

The overall rating of “Very Extensive” indicates that gender-responsive approaches are consistently applied in the classroom. Teaching Strategies received the highest score, meaning

teachers actively use varied methods, gender-neutral language, and inclusive activities. Classroom Environment scored slightly lower from the teachers' perspective, suggesting they recognize that improvements can still be made in

physical arrangement, resource representation, and grouping dynamics.

Comparison with Previous Studies:

This finding aligns with Canuto & Espique (2023), who noted that when institutions have clear GAD policies, teachers tend to adopt inclusive strategies. However, it differs slightly

from Alinea and Reyes (2022), who found lower implementation in classroom environment in more rural settings. This difference suggests that at ZSCMST, the policy framework is strong, but physical and social environment adjustments require more focus.

Level of Students' Engagement

Table 4 Summary of Students' Engagement

Dimensions	Students		Teachers	
	Mean	Remarks	Mean	Remarks
Active Participation	4.42	High	4.37	High
Attention and Focus	4.26	High	4.20	High
Interest and Curiosity	4.35	High	4.25	High
Overall Grand Mean	4.34	High	4.27	High

Legend: 1.00–1.50 = Very Low; 1.51–2.50 = Low; 2.51–3.50 = Average; 3.51–4.50 = High; 4.51–5.00 = Very High

Interpretation & Meaning

Students reported high levels of engagement, particularly in Active Participation. This means that when teachers apply GRTP, students feel safe enough to recite, collaborate, and express ideas. The slightly lower score in Attention and Focus suggests that even with good practices, maintaining concentration remains a challenge common to all learners.

Comparison with Previous Studies

This supports Halkiyo et al. (2023), who established that inclusive teaching reduces anxiety and increases participation. It is consistent with Tarrayo et al. (2021), who found that positive teacher attitudes directly translate to higher student motivation.

Relationship Between GRTP and Outcomes

Table 5 Correlation Analysis

Variables	r-value	p-value	Interpretation
GRTP vs. Student Engagement	0.72	< 0.001	Strong Positive Relationship
GRTP vs. Learning Outcomes	0.68	< 0.001	Strong Positive Relationship

Interpretation & Meaning

The strong positive correlation means that as the implementation of gender-responsive practices

increases, student engagement and academic performance also increase. This confirms that

inclusive teaching is not just a policy requirement but an effective strategy to improve learning.

Comparison with Previous Studies

This result mirrors Palacios et al. (2022) and Gurung & Rajbanshi (2020), who concluded that equitable classroom management is a significant predictor of educational success. The strength of the relationship found here validates the general theory in the specific context of Zamboanga.

Conclusions

Based strictly on the data gathered and analyzed, the study concludes that: Gender-responsive teaching practices are implemented to a Very Extent at ZSCMST, with the highest focus on teaching strategies and teacher attitudes. Students exhibit high levels of engagement and learning outcomes, showing strong participation and mastery of competencies. There is a significant positive relationship between GRTP and both engagement and learning outcomes. Significant differences exist across academic programs and teaching experience, indicating that practices may need adjustment based on discipline and teacher background.

Limitations of the Study

This study has certain limitations. In terms of scope, it is limited only to the College of Education and Liberal Arts at ZSCMST, so results may not fully represent other colleges or institutions. In terms of design, it uses a cross-sectional approach that captures data at one point in time and does not track long-term changes. In terms of method, it relies on self-reported perceptions rather than direct classroom observation.

Suggestion for Future Research

For future research, it is recommended that this study be replicated and expanded to other higher

education institutions in the region and across different disciplines. This will help determine if the findings are generalizable and allow for a more comprehensive regional framework.

Recommendations

Based on the findings, the following recommendations are put forward. For teachers: continue using inclusive strategies and provide equal opportunities for all genders to speak and lead activities; improve the classroom environment by using gender-neutral materials and ensuring safe spaces for discussion; and participate in advanced training on GAD and inclusive pedagogy. For administrators: use the findings to develop the proposed Instructional Design for Gender-Responsive Classrooms; integrate GAD principles into faculty development programs and classroom observation standards; and allocate resources to update learning materials and facilities to be more inclusive. For students: recognize the value of a respectful classroom culture and actively participate in creating an environment free from stereotypes.

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References

- Alinea, M., & Reyes, L. (2022). Gender-sensitive instruction and student participation in Philippine higher education. *Philippine Journal of Education Studies*, 7(2), 45–62.
- Canuto, R., & Espique, M. (2023). Inclusive education and gender-responsive practices in regional colleges. *Asia Pacific Journal of Multidisciplinary Research*, 11(3), 112–120.
- Garcia, A., et al. (2020). *Research methods in education: A practical guide*. Quezon City: Rex Book Store.

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- Gurung, S., & Rajbanshi, R. (2020). Gender-responsive teaching and student achievement. *International Journal of Inclusive Education*, 24(10), 1056–1072.
- Halkiyo, T., et al. (2023). Teacher attitudes and gender equality in the classroom. *Journal of Teacher Education and Practice*, 15(1), 23–38.
- Limberg, C., et al. (2021). Correlational research in education. *Educational Research Review*, 34, Article 100412.
- Muasya, J. (2021). *Gender-responsive teaching practices and student performance*. Nairobi: University of Nairobi Press.
- Palacios, R., et al. (2022). Creating inclusive classroom environments. *International Journal of Educational Management*, 36(4), 567–582.
- Shehhi, M., & Yaacob, N. (2022). Relationship between instructional practices and learning outcomes. *International Journal of Evaluation and Research in Education*, 11(2), 890–898.
- Tarrayo, V., et al. (2021). Gender and development in Philippine higher education. *Philippine Journal of Higher Education*, 18(1), 78–95.