

Comparative Analysis of Educators' Self-efficacy, Autonomy, and Perceived Stress Among Specialized and Non-specialized Teaching

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Abstract. Educators play a crucial role in supporting students' academic progress and personal development. This study compared self-efficacy, autonomy, and perceived stress between educators teaching specialized and non-specialized subjects. A total of 375 secondary school teachers from Pampanga were randomly selected to participate in the study. The primary objective was to test the hypothesis that there were no significant differences between the two groups in these variables. The data were gathered using three standardized instruments: the 12-item Teachers' Sense of Efficacy Scale, the 17-item Teacher Autonomy Scale, and the 7-item Teacher Stress Scale. Statistical analyses at a 0.05 significance level revealed significant differences in self-efficacy ($p = 0.01$) and autonomy ($p = 0.0049$) between specialized and non-specialized teachers. However, no significant difference was observed in stress levels ($p = 1.0$). These findings suggest that teaching specialization may enhance teachers' efficacy and autonomy, underscoring the importance of aligning teaching assignments with teachers' areas of expertise. The study highlights the importance of targeted professional development and institutional support in addressing the distinct challenges faced by both specialized and non-specialized educators, providing valuable insights into educational and psychological practices and offering practical recommendations to enhance teaching conditions and outcomes.

Keywords: Teacher self-efficacy; Teacher autonomy; Perceived stress; Specialization; Non-specialization.

1.0 Introduction

Educators play a crucial role in student development, influencing both their academic progress and personal growth. They fulfill this role by imparting knowledge and fostering a learning environment that supports students' holistic development. However, the realities of modern education reveal that teaching is a multifaceted profession influenced by numerous factors. Systemic challenges—such as teacher shortages, standardized curricula, and the evolving demands of the education system—often hinder educators' ability to perform at their best (Sutcher et al., 2019b). Educators tasked with teaching subjects outside their expertise often face significant challenges, a practice referred to as non-specialized teaching.

When educators teach within their area of specialization, it enhances their confidence and effectiveness in the classroom. However, those engaged in non-specialized teaching must devote time to adjusting to unfamiliar subjects, which can lead to various difficulties (Galang, 2021). In the Philippines, non-specialized teaching is often driven by concerns such as a lack of educators, scheduling conflicts, and limited resources. Studies have highlighted the pressures this type of teaching places on educators worldwide. Hobbs and Porsch (2021) observed that non-specialized teaching increases stress levels as educators try to learn and adjust to a different subject. This finding was supported by Baclay and Almonte (2020), who found that Filipino educators face challenges in terms of confidence, instructional effectiveness, and overall well-being.

The Philippine education system introduced the K-12 curriculum to align with international standards. However, this reform also brought the added responsibility of high school educators teaching non-specialized subjects. As a result, many teachers struggle to adopt and learn unfamiliar content while meeting institutional expectations (Arendain, 2022). Given these challenges, it is crucial to investigate how various educational factors impact teaching experiences. Co et al. (2021) emphasized that professional development and administrative support can help teachers adapt to educational changes, such as new teaching roles and responsibilities. While previous research has examined teacher efficacy, autonomy, and well-being, these factors are rarely studied collectively, particularly in the context of non-specialized teaching. The present study aims to fill this gap by examining how these variables interact and influence teaching assignments. In doing so, it seeks to generate insights that can inform educational reforms and promote teacher well-being.

This study examines the impact of teaching assignments on secondary educators' self-efficacy, autonomy, and stress levels, specifically comparing educators who teach within their area of specialization with those who do not. It aims to offer recommendations to enhance teacher well-being and effectiveness, contributing to both educational and psychological literature while improving educators' professional experiences. Relevant studies, both local and international, have demonstrated that non-specialized teaching has a significant impact on teacher self-efficacy, autonomy, and stress. These findings underscore the need for additional research to develop evidence-based strategies that foster a supportive school environment. Professional development and collaborative school policies can help address these challenges. Targeted training and a favorable organizational climate may lead to better teacher outcomes and improved student learning, particularly in non-specialized teaching contexts.

Thus, the researchers identified the following research questions: (1) What are educators' self-efficacy, autonomy, and perceived stress levels? (2) Is there a significant difference in the following variables between educators' specialized and non-specialized teaching? (a) Self-efficacy, (b) Autonomy, (c) Perceived stress. Furthermore, the null hypotheses will be tested at a 0.05 significance level to determine the statistical significance of the relationships among the variables. The following null hypotheses will be tested at the 0.05 significance level to determine the statistical significance of the relationships among the variables:

H01: There is no significant difference in the self-efficacy levels between educators teaching in their area of specialization and those teaching outside of it.

H02: There is no significant difference in the autonomy levels between educators teaching in their area of specialization and those teaching outside of it.

H03: There is no significant difference in the perceived stress levels between educators teaching in their area of specialization and those teaching outside of it.

2.0 Methodology

2.1 Research Design

This study employs a quantitative, causal-comparative design to examine the differences in self-efficacy, autonomy, and perceived stress among educators. This approach enables the systematic comparison of variables using numerical data and statistical analysis (Mohajan, 2020; Miksza et al., 2023). This methodology is well-suited to investigating naturally occurring differences between groups, which shows the unique challenges faced by teachers in various teaching contexts (Cohen et al., 2017) and informs the development of targeted interventions in educational settings (Johnson & Christensen, 2019).

2.2 Participants and Sampling Technique

In this study, the participants were specialized and non-specialized secondary school teachers from various educational institutions in Pampanga. Stratified random sampling was initially employed to ensure sufficient representation of both specialized and non-specialized subject groups. However, due to teacher availability during the data collection period, the sampling method was adjusted to convenience sampling. Respondents were included based on accessibility and willingness to participate, while efforts were still made to ensure diversity across both subject groups. The chosen locale for this study was Pampanga, comprising three cities and nineteen municipalities. To enhance the sample's representativeness, the municipalities were divided into different regions for sampling purposes. Each municipality was required to have at least one school, including both public and private institutions. At least three teachers from both the specialized and non-specialized groups were selected per area.

The final sample consisted of 375 educators, 183 of whom were assigned to specialized subjects and 192 to non-specialized subjects. This distribution was intended to ensure balanced representation between the two groups and to provide sufficient statistical power to detect significant differences. The criteria for participant selection were as follows: (a) secondary school teachers currently working in Pampanga, (b) at least one semester of teaching experience, and (c) PRC licensure was not required. These criteria ensured that the sample reflected the actual working conditions within the region while aligning with the study's objectives concerning self-efficacy, autonomy, and stress among secondary educators.

2.3 Research Instrument

The researchers provided respondents' demographics, which included the necessary information for every respondent. Then they used three validated scale tests to measure three key variables: self-efficacy, autonomy, and perceived stress among educators who teach non-specialization subjects.

The first test to measure self-efficacy is the OSTES/TSES (Teachers' Sense of Efficacy Scale), developed by Tschannen-Moran and Hoy (2001), which measures teachers' beliefs in their ability to impact student learning outcomes across three subscales: student engagement (8 items), instructional strategies (8 items), and classroom management (8 items). This 24-item scale, divided equally among the subscales, employs a Likert scale (1 = "nothing," 9 = "a great deal"). It has demonstrated strong internal consistency ($\alpha > 0.80$) and validity, predicting teacher behaviors and student outcomes (Tschannen-Moran & Woolfolk Hoy, 2001). Former validation studies have confirmed the reliability of the long and short versions of specific scales, affirming the appropriateness for evaluating teacher efficacy across different settings. For this research, the Teacher Self-Efficacy Scale (TSES) short form, comprising 12 items, will be employed.

The Teacher Autonomy Scale (TAS) will be used to measure teacher autonomy, which was created by Çolak and Altinkurt (2017). This is a 17-item multidimensional tool designed to assess teachers' perceptions of autonomy in various areas. The scale has four sub-dimensions: autonomy in the teaching process (6 items), curriculum autonomy (5 items), autonomy in professional development (3 items), and professional communication autonomy (3 items). The scale includes a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Cronbach's Alpha will be used to measure reliability, and the TAS will demonstrate strong internal consistency ($\alpha > 0.78$). Content analysis, criterion validity in relation to job satisfaction and teaching effectiveness, and concurrent validity in relation to other specific measures have been used to demonstrate the scale's validity. The scale's structure is supported by factor analysis, making it a reliable and valid instrument for assessing teacher autonomy in professional environments.

The Teacher Stress Scale (TSS) will be employed to measure stress, the third variable. This psychometric tool was developed by Chen et al. (2022) to assess stress levels among teachers. The scale consists of seven items, and it also has two primary constructs: Inadequate School-Based Support (3 items), which indicates the lack of administrative and peer support and challenges in handling student behaviors, and Teaching-Related Demands (4 items), which explores stressors related to concerns about teaching performance, fulfilling students needs, time management, and workload. The scale also includes a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The psychometric validation confirmed the scale's reliability, with internal consistency coefficients ranging from 0.70 to 0.90 across multiple samples.

2.4 Data Gathering Procedure

The researchers obtained necessary approvals before data collection through a permission letter signed by the leader of the group, the research instructor, the thesis adviser, the college department chairperson, and the college dean. This letter was presented to the school heads and institutions to request permission to conduct the survey. At the start of the data collection phase, the researchers contacted school administrators via email, the school's official Facebook page, or in person. Upon approval, participants received informed consent forms that disclosed the study's objectives, potential risks and benefits, and their rights. Once informed consent was obtained, participants completed a demographic profile questionnaire, and the research scales used in this study. To accommodate time constraints and unforeseen circumstances affecting some educational institutions, the researchers also utilized Google Forms to collect data from schools that requested and approved the online survey method. After collecting the data, the researchers securely stored and organized it in preparation for analysis and interpretation.

2.5 Data Analysis Procedure

The data analysis for this study employed multiple statistical techniques to analyze self-efficacy, autonomy, and perceived stress among secondary school educators, including both specialized and non-specialized teachers. Python software was used for data processing, scoring, and interpretation. To address Research Question 1, descriptive statistics (sample mean, standard deviation, and interpretation) were used to summarize teachers' self-efficacy, autonomy, and stress levels. To address Research Question 2, two inferential statistical tests were employed: A t-test to compare the (2.A) self-efficacy and (2.B) autonomy scores of specialized and non-specialized teachers, as it evaluates differences between the means of two independent groups and the Mann-Whitney U test was used for (2.C) stress, given its suitability for ordinal data or when the assumptions of the t-test (e.g., normal distribution) are not met. Normality was assessed using the Shapiro-Wilk test to determine the appropriate statistical method for each variable.

2.6 Ethical Considerations

The researchers outlined the study's objectives and methods to the participants, ensuring mutual understanding and informed consent. Measures were implemented to maintain confidentiality, anonymity, and privacy throughout the research process. Participants were fully informed of the study's purpose, potential outcomes, and their rights before consenting to participate. All participant information was treated with strict confidentiality and stored securely. The researchers are committed to upholding ethical standards and accountability in all aspects of the research.

3.0 Results and Discussion

3.1 Demographic Profile of Respondents

The demographic profile of respondents is summarized in Table 1. This data provides context for understanding the findings.

Table 1. Demographic profile of respondents

Characteristic	Specialized (S) <i>n</i> ₁ = 183 (48.80%)	Non-Specialized (NS) <i>n</i> ₂ = 192 (51.20%)	Total (%) <i>n</i> = 375
Sex			
Male	84 (22.40%)	56 (14.93%)	140 (37.33%)
Female	99 (26.40%)	136 (36.27%)	235 (62.67%)
Age			
20–25 years	53 (14.13%)	102 (27.20%)	155 (41.33%)
26–30 years	42 (11.20%)	47 (12.53%)	89 (23.73%)
31–35 years	44 (11.73%)	38 (10.13%)	82 (21.87%)
36–40 years	23 (6.13%)	3 (0.80%)	26 (6.93%)
41–45 years	21 (5.60%)	2 (0.53%)	23 (6.13%)
Educational Attainment			
Bachelor's Degree	123 (32.80%)	180 (47.73%)	303 (80.53%)
Master's Degree	60 (16.00%)	12 (3.20%)	72 (19.20%)
Employment			
Public	148 (39.47%)	117 (31.20%)	265 (70.67%)
Private	35 (9.33%)	75 (20.00%)	110 (29.33%)

Three hundred seventy-five secondary school teachers participated in the study, with 183 (48.80%) specialized educators and 192 (51.20%) non-specialized educators. Most participants fell within the 20–25 age group, accounting for 14.13% of specialized and 27.20% of non-specialized teachers. Regarding educational attainment, the most significant proportion held a bachelor's degree (32.80% of specialized and 47.73% of non-specialized teachers). Employment data revealed that 39.47% of specialized teachers and 31.20% of non-specialized teachers worked in public schools. In comparison, 9.33% and 20% of the respondents were employed in private institutions.

The study revealed that specialized teachers exhibited significantly higher self-efficacy and autonomy than non-specialized educators. This observation aligns with Bandura's (1977) Social Cognitive Theory, which emphasizes the importance of mastery experiences in building self-efficacy. This is supported by Klassen and Tze's (2014) meta-analysis, which states that familiarity with content boosts confidence and teaching effectiveness. Local literature supports the study by Bernardo and Ismail (2019), who observed similar trends among Filipino educators, showing that subject expertise leads to greater confidence in classroom management, instructional methods, and student engagement.

3.2 Levels of Self-efficacy, Autonomy, and Perceived Stress

Specialized teachers reported higher levels of self-efficacy, with a mean score of 4.85 ($SD = 0.57$), whereas non-specialized teachers scored lower, with a mean of 4.32 ($SD = 0.62$). For autonomy, specialized teachers also exhibited higher levels ($m = 3.73$, $SD = 0.45$) than their non-specialized counterparts ($m = 3.56$, $SD = 0.50$). These results suggest that familiarity with the subject matter may contribute to specialized teachers' confidence and ability to exercise control over their instructional practices. Stress levels remained relatively low for specialized teachers ($m = 1.86$, $SD = 0.30$) and moderate for non-specialized teachers ($m = 2.00$, $SD = 0.35$). This indicates that systemic factors beyond teaching assignments, such as workload and administrative demands, may influence stress, affecting all educators similarly.

Table 2. Levels of Self-efficacy, Autonomy, and Perceived Stress

Variable	Group	<i>n</i>	Mean ($\bar{x}$)	Std. Deviation (σ)
Self-Efficacy	Specialization	183	4.85	0.57
	Non-Specialization	192	4.32	0.62
Autonomy	Specialization	183	3.73	0.45
	Non-Specialization	192	3.56	0.50
Stress	Specialization	183	1.86	0.30
	Non-Specialization	192	2.00	0.35

Narrowing the discussion to the sub-dimensions of self-efficacy, specialized teachers scored higher in classroom management based on the provided sub-dimensions in the TSES. This is consistent with Woodcock et al. (2022), who found that teachers with high self-efficacy are more focused on fostering student achievement and confidence. In contrast, non-specialized teachers faced more difficulty with instructional strategies, which points to the challenges of adapting to unfamiliar subject matter (Wyatt, 2015).

3.3 Self-efficacy Differences between Groups

The study examined whether there was a significant difference in self-efficacy between specialized and non-specialized educators.

Table 3. Self-efficacy differences between groups

Group	t-value	Degrees of Freedom	p-value
Specialization	2.85	18	.010
Non-specialization			

Table 3 illustrates the independent sample t-test between the two groups, which revealed a statistically significant difference ($t(18) = 2.85$, $p = .010$); therefore, the null hypothesis (H_0) was rejected. Furthermore, Trudel et al. (2021) noted that confidence in handling classroom challenges is primarily shaped by mastery experiences, which specialized teachers are more likely to have. Non-specialized teachers, on the other hand, may experience lower self-efficacy when adjusting their teaching methods to unfamiliar content areas. Tschannen-Moran and Hoy's (2001) teacher efficacy theory suggests that teacher self-efficacy impacts the teacher's capacity to address professional challenges; therefore, non-specialist teachers may require additional support.

3.4 Sub-dimensions of Self-efficacy for Specialized (S) and Non-specialized (NS) Educators

Presented in Table 4 are the self-efficacy scores analyzed with the three sub-dimensions of the Teacher Self-Efficacy Scale (TSES): classroom management, instructional strategies, and student engagement. Specialized teachers consistently scored higher across all sub-dimensions compared to non-specialized teachers.

Table 4. *Sub-dimensions of Self-efficacy for Specialized (S) and Non-specialized (NS) Educators*

Sub-Dimension	Specialized (S)	Non-Specialized (NS)	Key Observations
Efficacy in Student Engagement (Items 2,3,4,11)	$\bar{x} = 4.96$ $\sigma = 0.29$	$\bar{x} = 4.25$ $\sigma = 0.62$	Specialized teachers exhibit higher confidence in motivating students and involving families; NS teachers report lower efficacy in engaging students.
Efficacy in Instructional Strategies (Items 5,9, 10, 12)	$\bar{x} = 4.39$ $\sigma = 0.35$	$\bar{x} = 4.35$ $\sigma = 0.62$	Both groups report moderate efficacy, but specialized teachers show a slight advantage due to familiarity with content and adaptive teaching methods.
Efficacy in Classroom Management (Items 1,6,7,8)	$\bar{x} = 5.29$ $\sigma = 0.25$	$\bar{x} = 4.36$ $\sigma = 0.62$	Specialized teachers feel significantly more confident in maintaining discipline and handling disruptive behavior, NS teachers report low efficacy.

In student engagement, specialized teachers scored a mean of 4.90 ($SD = 0.29$), whereas non-specialized teachers reported a mean of 4.25 ($SD = 0.62$), suggesting a stronger ability to engage students effectively. In terms of instructional strategies, specialized teachers achieved a mean of 4.39 ($SD = 0.35$), compared to 4.35 ($SD = 0.62$) for non-specialized teachers, indicating that the latter faced challenges in adapting teaching methods for unfamiliar content. Lastly, specialized teachers reported a mean of 5.29 ($SD = 0.25$) for classroom management, while non-specialized teachers had a mean of 4.36 ($SD = 0.62$), indicating greater confidence in maintaining classroom order.

3.5 Autonomy Differences between Groups

The study also examined whether there was a significant difference in autonomy between specialized and non-specialized educators.

Table 5. *Autonomy differences between groups*

Group	t-value	Degrees of Freedom	p-value
Specialization	3.03	18	.005
Non-specialization			

Table 5 highlights the autonomy scores for specialized and non-specialized teachers, with the specialized group scoring significantly higher. The independent samples t-test results indicate a statistically significant difference in autonomy between the two groups ($t(18) = 3.03, p = .005$), with a moderate to strong effect size. Therefore, the null hypothesis is rejected (H_0).

In the dimension of autonomy, specialist teachers had greater autonomy, particularly in aspects such as instructional decisions, curriculum planning, and professional development. This is complemented by Deci and Ryan's (2008) Self-Determination Theory, which identifies autonomy as a significant source of motivation and job satisfaction. The outcome also complemented Çolak and Altinkurt's (2017) study in terms of similarity, highlighting the importance of autonomy in the teaching and curriculum processes to enable professional autonomy.

3.6 Sub-dimensions of Autonomy for Specialized (S) and Non-specialized (NS) Educators

The Teacher Autonomy Scale (TAS) results revealed that specialized educators scored higher across all sub-dimensions than non-specialized educators, with notable differences in teaching autonomy and curriculum autonomy, as presented in Table 6. For teaching autonomy, specialized teachers had a mean of 2.96 ($SD = 1.91$), compared to 2.51 ($SD = 0.57$) for non-specialized teachers, indicating more flexibility in instructional decision-making. In curriculum autonomy, specialized teachers achieved a mean of 3.93 ($SD = 1.51$), while non-specialized teachers reported a mean of 3.59 ($SD = 0.42$), reflecting greater control over curriculum-related decisions. For professional development autonomy, specialized teachers scored a mean of 4.23 ($SD = 1.91$), compared to 4.05 ($SD = 0.86$) for non-specialized teachers. Similarly, in terms of communication autonomy, specialized teachers had a mean of 4.11 ($SD = 2.28$), while non-specialized teachers reported a mean of 3.61 ($SD = 0.45$), suggesting more opportunities for collaboration and professional interaction. However, non-specialist teachers are restricted in

their autonomy since they depend on administrative instructions and pre-prepared teaching materials, as found in Pfitzner-Eden's (2016) research, which revealed that institutional constraints hinder flexibility in teacher decision-making. The outcome of the standardized K-12 curriculum implemented in the Philippines also limits their autonomy, as per Galang (2021), but this limitation could be averted through interventions such as collaborative planning and mentorship programs that can assist in strengthening the autonomy of non-specialist teachers.

Table 6. *Sub-dimensions of Autonomy for Specialized (S) and Non-specialized (NS) Educators*

Sub-Dimension	Specialized (S)	Non-Specialized (NS)	Key Observations
Teaching Autonomy (Items 1,3,4,9,10,11)	$\bar{x}$ = 2.96 σ = 1.91	$\bar{x}$ = 2.51 σ = 0.57	Specialized teachers show greater freedom in selecting methods and planning; NS teachers rely more on pre-designed materials.
Curriculum Autonomy (Items 2,5,6,7,8)	$\bar{x}$ = 3.93 σ = 1.51	$\bar{x}$ = 3.59 σ = 0.42	Specialized teachers are better at adapting the curriculum to students' needs; NS teachers struggle more with content flexibility.
Professional Development Autonomy (Items 12,13,14)	$\bar{x}$ = 4.23 σ = 1.91	$\bar{x}$ = 4.05 σ = 0.86	Both groups report high autonomy in selecting professional development activities, but specialized teachers exhibit slightly more confidence.
Communication Autonomy (Items 15,16,17)	$\bar{x}$ = 4.11 σ = 2.28	$\bar{x}$ = 3.61 σ = 0.45	Specialized teachers feel more confident in their communication with colleagues and parents compared to NS teachers.

The hierarchical organization of the Philippine education system, along with its emphasis on standardized goals, creates a unique context for interpreting these findings. Systemic limitations typically restrict teacher autonomy, as evidenced by the trend of TAS responses of non-specialized teachers. Institutional and cultural pressures likely increase the stress levels of non-specialized teachers, emphasizing the need for reform that empowers teachers while upholding cultural norms of respect (Usma-Wilches, 2006; Santos & Amador, 2017). Regarding autonomy sub-dimensions, expert teachers are proficient in instructing process autonomy, curriculum autonomy, and professional development autonomy sub-dimensions. The results are consistent with Kara and Bozkurt's (2022) emphasis on providing teachers with the authority to connect classroom practice to students' needs. Nevertheless, as Galang (2021) revealed, non-specialized educators may experience difficulties in commanding teaching methods due to a lack of experience in subject matter and organizational constraints.

3.7 Perceived stress level differences between groups

Lastly, the study examined whether there was a significant difference in perceived stress between specialized and non-specialized educators.

Table 7. *Perceived stress level differences between groups*

Group	U-Statistics	p-value
Specialization	39.0	1.000
Non-specialization		

The analysis revealed that stress levels were slightly lower for specialized teachers ($m = 1.86$, $SD = 0.30$) than for non-specialized teachers ($m = 2.00$, $SD = 0.35$). However, the difference was not statistically significant, as indicated by the Mann-Whitney U test ($U = 39.0$, $p = 1.000$), leading to the acceptance of the null hypothesis (H03). Both groups reported moderate stress levels, with variability in the interquartile range (IQR). The non-specialization group exhibited a wider IQR, reflecting more significant variability in stress, but the overall range of scores for both groups was similar, spanning from approximately 3.2 to 4.4. Contrary to expectations, the two groups showed no significant differences in perceived stress levels, as measured by the TSS. This suggests that more systemic factors, including school climate and administrative factors, influence teachers, while non-specialized teachers may have different stressors. Hobbs and Porsch (2021) proposed that the stress of non-specialized teachers would be elicited by new material and increased demands for preparation. Significant stressors include a lack of school-based support and excessive teaching demands, as outlined by Chen et al. (2022).

3.8 Sub-dimensions of Perceived Stress for Specialized (S) and Non-Specialized (NS) Educators

Table 8 presents a further analysis using the Teacher Stress Scale (TSS), which revealed that both groups experienced moderate stress levels overall. However, non-specialized teachers faced heightened challenges across both constructs. For Inadequate School-Based Support, non-specialized teachers reported higher stress levels (m

= 2.16, $SD = 0.35$) compared to specialized teachers ($m = 2.00$, $SD = 0.30$). This construct encompasses stress related to insufficient administrative and peer support.

Table 8. *Sub-dimensions of Perceived Stress for Specialized (S) and Non-Specialized (NS) Educators*

Construct/Factor	Specialized (S)	Non-Specialized (NS)	Key Observation
Inadequate School-Based Support (Items 1,2,3)	$\bar{x} = 2.00$ $\sigma = 0.30$	$\bar{x} = 2.16$ $\sigma = 0.35$	Stress from administrative support was slightly lower for specialized teachers.
Teaching- Related Demands (Items 4,5,6,7)	$\bar{x} = 2.17$ $\sigma = 0.27$	$\bar{x} = 2.36$ $\sigma = 0.31$	NS teachers reported higher stress related to workload and addressing diverse learning needs, reflecting the additional effort required to prepare for unfamiliar content and adapt instruction.

For Teaching-Related Demands, non-specialized teachers reported significantly higher stress ($m = 2.36$, $SD = 0.31$) than their specialized counterparts ($m = 2.17$, $SD = 0.27$). This construct includes workload-related stress and challenges in addressing the diverse learning needs of students. Non-specialized teachers are likely to experience these stressors more acutely due to the additional time and effort required to prepare lessons for subjects outside their area of expertise. For example, tailoring instruction to meet students' varied learning needs can be particularly stressful for non-specialized teachers, as they may lack the necessary depth of content knowledge. Thus, Jentsch et al. (2022) emphasized that a favorable school climate and administrative support are the most important factors in mitigating stress and enhancing job satisfaction. Despite the general level of shared stress suggesting equal institutional impact, the stress sub-dimensions, such as poor support and teaching needs, suggest avenues for further research. Studies suggest mindfulness and cognitive-behavioral interventions can de-stress both groups (Bolton, 2018; Paudel et al., 2022).

Overall, this study's interaction of self-efficacy, stress, and autonomy also encompasses the role of systemic support in affecting teachers' professional lives. Self-efficacious teachers will likely seek autonomy, resist stress, and enhance teaching quality (Skaalvik & Skaalvik, 2014; Zhao & Qin, 2021). This interaction is particularly suited for non-specialized teachers, who are likely to respond to interventions that enhance confidence and decision-making ability. The findings also complement the study of Nguyen et al. (2023), which links professional development with increased autonomy and job satisfaction. Teacher autonomy and self-efficacy-oriented schools can build supportive systems that minimize stress and enhance instructional quality. Finally, leadership and institutional policies also play a crucial role in addressing the issues of non-specialized teachers. The role of school leadership in the Philippine context is to enhance institutional policies that promote professional development and collaboration. Supportive school cultures that enhance collaborative decision-making and tailored professional development programs can address the autonomy and stress issues identified by this study. Furthermore, operating mentorship programs could empower non-specialized teachers, promoting their self-efficacy, autonomy, and professional satisfaction (Mama & Tagadiad, 2024).

4.0 Conclusion

The findings of this study suggest that specialized educators report higher levels of self-efficacy and autonomy. However, the similar stress levels observed across both groups suggest that they face shared challenges, affecting all teachers, regardless of specialization. These results underscore the need for broader support initiatives aimed at improving teacher well-being and classroom performance by fostering environments that promote self-efficacy, autonomy, and effective stress management. Several limitations of this study should be acknowledged. The most significant limitation lies in the sample size and representativeness of secondary school educators selected from Pampanga. The experiences of educators from different regions, school types, or grade levels may not be fully captured, limiting the generalizability of the findings, especially in the context of varying educational structures and resources.

Another limitation involves the data collection method. This study relied on surveys, which are susceptible to biases such as social desirability and self-reporting errors. Participants' responses may have been influenced by these biases, affecting the accuracy of the data. Although statistical techniques were used to analyze the data, these may not have fully controlled for potential confounding variables. More advanced statistical methods could have strengthened the analysis by accounting for such influences. Additionally, the study did not consider external factors such as school policies, administrative support, or the specific subject matter taught. These elements can

significantly impact teachers' self-efficacy, autonomy, and stress levels. Without incorporating these broader institutional contexts, the focus on teacher specialization may have overlooked key influences on the variables examined. Moreover, the study's causal-comparative design does not support conclusions about causality. Since the specialized and non-specialized groups were pre-existing and not randomly assigned, the findings should be interpreted as associations rather than causal relationships.

Future research should address these limitations by increasing the sample size and including educators from diverse areas, school types, and grade levels to enhance the generalizability of findings. A mixed-methods approach is also recommended, integrating qualitative data from focus groups or interviews with quantitative survey responses. This could reduce the impact of self-reporting bias and provide deeper insights into the challenges educators face in both specialized and non-specialized roles. Furthermore, future studies should explore external factors—such as institutional culture, administrative support, and school policies—that may influence stress, autonomy, and self-efficacy. Understanding the role of the school environment is crucial for fostering professional development and reducing teacher stress.

To further enrich the findings, researchers recommend conducting longitudinal studies, such as test-retest designs, to track changes in stress, autonomy, and self-efficacy over time, particularly among non-specialized teachers. This approach could offer insights into how these factors evolve and how educators adapt to long-term challenges. Additionally, qualitative research on the lived experiences of non-specialized instructors can provide valuable insights into how they manage their professional demands. These findings could inform the design of targeted interventions, such as professional development workshops or mentorship programs. Ultimately, experimental studies could rigorously explore causal relationships to provide stronger evidence on how teaching specialization affects various professional outcomes.

5.0 Contributions of Authors

All researchers contributed and played an active role in the writing, editing, data collection, and overall direction of the research.

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7.0 Conflict of Interests

The researchers declare that there are no potential conflicts of interest with respect to the research, authorship, or publication of this study.

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9.0 References

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