

Original Article

Teacher Leadership Competency and Professional Teaching Preparedness of Pre-Service Teachers in Higher Education

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Abstract

This study examined teacher leadership competency and professional teaching preparedness among 178 pre-service teachers in a higher education institution in Davao City. The study employed a non-experimental quantitative design using descriptive, comparative, and correlational analyses. Data were collected through the Teacher Leadership Competency Scale and the Professional Teaching Preparedness Scale and analyzed using mean, standard deviation, one-way Analysis of Variance, and Pearson product-moment correlation. Teacher leadership competency had an overall mean of 3.49, while the professional teaching preparedness summary had a mean of 3.50. Teacher leadership competency differed significantly across the five teacher education programs, $F(4, 173) = 2.933$, $p = .022$, $\eta^2 = .064$, whereas the professional teaching preparedness did not, $F(4, 173) = 1.201$, $p = .312$, $\eta^2 = .027$. The association between teacher leadership competency and professional teaching preparedness was statistically significant but very weak, $r = .191$, $p = .010$ ($r^2 \approx .036$). The findings describe perceived leadership competency and classroom teaching preparedness, engagement, and self-efficacy within one institution and should not be interpreted as evidence of a strong or causal relationship.

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1. Introduction

Teacher education is expected to prepare pre-service teachers not only to plan and deliver instruction but also to collaborate, exercise professional judgment, and contribute to school improvement. Teacher leadership refers to the influence teachers exercise to support teaching and learning, colleagues, and organizational improvement, and it can occur without a formal administrative position (Harris & Jones, 2019; Schott et al., 2020). For pre-service teachers, early exposure to leadership roles may broaden their understanding of teaching as both classroom practice and shared professional responsibility (Aliu & Kaçaniku, 2023).

Distributed Leadership Theory provides a theoretical foundation for examining teacher leadership competency. From a distributed perspective, leadership practice is stretched across people, interactions, routines, and situations rather than located only in formal leaders (Spillane, 2006). This perspective is consistent with evidence that professional collaboration and shared influence are important conditions for teacher initiative and innovation (Lin, 2022). In the present study, teacher leadership competency is operationalized through collaborative culture, instruction, and student behavior, leadership attributes, and referral leader dimensions, as derived from the Teacher Leadership Competency Scale (Kho Chee Yuet et al., 2016).

A second outcome relevant to the transition into teaching is the set of constructs measured by the Professional Teaching Preparedness Scale developed by Abraham et al. (2021). It measures six related but distinct constructs: four dimensions of teacher preparedness—Relation, Knowledge, Strategies, and Environment—together with readiness to engage with the profession and self-efficacy in classroom teaching.

The study was conducted at a private higher education institution in Davao City that offers five teacher education programs included in the sample: BSEd-English, BSEd-Mathematics, BSNEd, BPE, and BEED. Although these programs share professional education requirements, their disciplinary emphases and field-based learning experiences may provide different opportunities to practice collaboration, instructional leadership, classroom decision-making, and professional engagement. Comparing the five programs, therefore, provides a program-level view of how perceived leadership competency and teaching-related preparedness are distributed within the institution.

Accordingly, this study aimed to (1) determine the level of teacher leadership competency; (2) describe the six dimensions of professional teaching preparedness; (3) test whether teacher leadership competency and the professional teaching preparedness differ across teacher education programs; and (4) determine the association between teacher leadership competency and the professional teaching preparedness. The study is limited to fourth-year pre-service teachers in one institution, and its correlational design does not support causal conclusions.

2. Methodology

2.1. Research Design

This study used a non-experimental quantitative design with descriptive, comparative, and correlational components (Creswell & Creswell, 2018). Variables were measured as they naturally occurred, program groups were compared without manipulation, and the association between teacher leadership competency and professional teaching preparedness was examined. The design is therefore appropriate for identifying patterns and associations but not for establishing cause-and-effect relationships. The study used a descriptive-correlational approach to summarize the measured variables and examine their associations, and a one-way group comparison to test differences across the five teacher education programs (Fraenkel & Wallen, 1993). The analysis focused on fourth-year pre-service teachers enrolled at a single institution.

2.2. Research Respondents

The respondents were 178 fourth-year pre-service teachers from various programs at St. John Paul II College of Davao, including 36 BSEd-English, 24 BSEd-Mathematics, 14 BSNE, 46 BPE, and 58 BEED. The study used stratified random sampling, with the teacher education program as the stratum, ensuring participants were selected from each subgroup. Eligibility was limited to students enrolled in the teacher preparation programs included in the study and with sufficient exposure to their program's professional education coursework. Students who declined participation were excluded. Clear inclusion and exclusion criteria support a sample that is aligned with the research objectives (Patino & Ferreira, 2018).

2.3. Research Instrument

Two survey instruments were used. The first was a modified Teacher Leadership Competency Scale based on Kho Chee Yuet et al. (2016), which measured collaborative culture, instruction and student behavior, leadership attributes, and referral leader; the version used in the study yielded a Cronbach's alpha of .977. The second was the Professional Teaching Preparedness Scale developed by Abraham et al. (2021), which measures Relation, Knowledge, Strategies, Environment, Engagement, and Self-efficacy; the version used in the study yielded a Cronbach's alpha of .923. The professional teaching preparedness instrument is reported according to its original construct purpose and is not relabeled as global readiness.

The modified questionnaires underwent expert review for content, clarity, and contextual appropriateness, followed by pilot testing before the main data collection. Internal consistency was assessed using Cronbach's alpha; coefficients above .70 are commonly treated as evidence of acceptable internal consistency for research

instruments (Taherdoost, 2016). The study used a five-point Likert response format. The reported reliability coefficients apply to the versions administered in the present study and do not, by themselves, establish the validity of a different construct label.

2.4. Data Collection

Data collection followed a sequence of instrument review, institutional permission, respondent recruitment, face-to-face survey administration, data checking, and statistical analysis. The authors obtained formal approval from the institutional authorities before data collection and excluded respondents who declined to participate. Before data collection, the authors reviewed the study and obtained administrative permission from the participating institution. All respondents provided written informed consent to participate and were given the option not to participate. All participants were told they could refuse to answer any question and could withdraw from the study at any time without penalty. No personal data or names were gathered, and responses were kept confidential. Data were stored for 6 months after collection and then securely destroyed and deleted. Only aggregate data have been reported to avoid identifying individual respondents and/or participating academic units.

2.5. Statistical Tools

The respondents' scores on teacher leadership competency and professional teaching preparedness dimensions were summarized using means and standard deviations. One-way Analysis of Variance (ANOVA) tested for differences in mean scores across five teacher education programs, with degrees of freedom and eta-squared (η^2) effect sizes reported alongside omnibus F tests to facilitate interpretation. Pearson product-moment correlation assessed the strength and direction of the relationship between overall teacher leadership competency and professional teaching preparedness, noting that correlation indicates association, not causation. The significance level was set at $\alpha = .05$. Due to the absence of program-specific means or post hoc analyses in the manuscript, the interpretation of the ANOVA is limited to the omnibus results unless additional data from the original analysis are provided.

3. Results

3.1. Level of Teacher Leadership Competency

Table 1 presents the category-level teacher leadership competency results. The overall mean was 3.49 (SD = .088), interpreted in the study's scale as very high. Leadership Attributes had the highest category mean (M = 3.50, SD = .198), while Referral Leader had the lowest (M = 3.48, SD = .236); however, the category means were closely clustered.

Table 1. Teacher leadership competency.

Variables	Mean	SD
Collaborative Culture	3.49	.142
Instruction and Student Behavior	3.49	.265
Leadership Attributes	3.50	.198
Referral Leader	3.48	.236
Overall	3.49	.088

Collaborative Culture and Instruction and Student Behavior each had a mean of 3.49 (SD = .265). Taken together, the four category means indicate consistently high self-reported leadership competency across the measured domains, while the small differences among categories should not be overinterpreted.

3.2. Level of Professional Teaching Preparedness, Engagement, and Self-Efficacy

Table 2. Professional teaching preparedness.

Variables	Mean	SD
Relation	3.49	.177
Knowledge	3.49	.098
Strategies	3.50	.157
Environment	3.50	.137
Engage	3.50	.110
Self-efficacy	3.50	.270
Overall	3.50	.058

Table 2 presents the six dimensions of professional teaching preparedness. The descriptive summary mean across the six dimensions was 3.50 (SD = .058). This summary describes the response pattern in the present dataset only; it is not interpreted as a validated global-readiness construct. Strategies, Engage, and Self-efficacy each had the highest category mean (M = 3.50), followed by Relation and Knowledge (M = 3.49), while Environment had the lowest category mean (M = 3.48). The narrow range of category means indicates that respondents rated the six teaching-related dimensions similarly.

Within the professional teaching preparedness framework, Relation, Knowledge, Strategies, and Environment represent dimensions of teacher preparedness, Engage represents readiness to engage with the profession, and Self-efficacy represents confidence in classroom teaching (Abraham et al., 2021). These dimensions should therefore be discussed within the domain of professional teaching readiness rather than global competence.

3.3. Differences in Teacher Leadership Competency and the Professional Teaching Preparedness Across Teacher Education Programs

Table 3. ANOVA results by teacher education program.

Variable	Group	Mean Square	F-value	p-value	Decision on H _o
Teacher Leadership Competency	Between Groups	.022	2.933	.022	Rejected
	Within Groups	.008			
Global readiness	Between Groups	.004	1.201	.312	Accepted
	Within Groups	.003			
Multiple Comparisons					
Variable	Program		Standard Error	p-value	Decision on H _o
Teacher leadership competency	BSEDE	BSEDM	.023	.022	Significant
		BEED	.019	.069	Not Significant
		BSNED	.028	.266	Not Significant
		BPE	.019	.102	Not Significant
	BSEDM	BSEDE	.023	.022	Significant
		BEED	.021	.849	Not Significant
		BSNED	.029	.986	Not Significant
		BPE	.022	.850	Not Significant
	BEED	BSEDE	.019	.069	Not Significant
		BSEDM	.021	.849	Not Significant
		BSNED	.026	.999	Not Significant
		BPE	.017	1.000	Not Significant
	BSNED	BSEDE	.028	.266	Not Significant
		BSEDM	.029	.986	Not Significant
		BEED	.026	.999	Not Significant
		BPE	.027	.999	Not Significant
		BSEDE	.019	.102	Not Significant

	BPE	BSED	.022	.850	Not Significant
		BEED	.017	1.000	Not Significant
		BSNED	.027	.999	Not Significant

Table 3 presents the omnibus one-way ANOVA results. Teacher leadership competency differed significantly across the five teacher education programs, $F(4, 173) = 2.933$, $p = .022$, $\eta^2 = .064$. The effect size indicates a modest association between the program and group. In contrast, professional teaching preparedness did not differ significantly across programs, $F(4, 173) = 1.201$, $p = .312$, $\eta^2 = .027$. The significant omnibus leadership result indicates that at least one program mean differs, but it does not identify which programs differ.

3.4. Relationship Between Teacher Leadership Competency and Professional Teaching Preparedness

Table 4. Correlations between teacher leadership competency and professional teaching preparedness.

Teacher Leadership Competency	Global Readiness						Overall
	Relation	Knowledge	Strategies	Environment	Engage	Self-efficacy	
Collaborative Culture	.184	.083	.339	.174	.126	.472	.387
	.014	.269	.000	.020	.095	.000	.000
Instruction and Student Behavior	.148	.186	.110	.255	.131	.501	.374
	.048	.013	.144	.000	.081	.000	.000
Leadership attributes	.168	.043	.418	.041	.197	.036	.177
	.025	.569	.000	.590	.008	.637	.018
Referral Leader	.341	.061	.546	.075	.159	.618	.530
	.000	.422	.000	.322	.034	.000	.000
Overall	.122	.074	.241	.004	.163	.267	.191
	.103	.325	.001	.957	.029	.000	.010

Table 4 shows the correlations between teacher leadership competency and professional teaching preparedness. The overall association between teacher leadership competency and professional teaching preparedness was positive and statistically significant but very weak ($r = .191$, $p = .010$). The corresponding coefficient of determination is approximately $r^2 = .036$, indicating that only about 3.6% of the variance is shared in this bivariate relationship. Statistical significance should therefore not be interpreted as a strong practical relationship or as evidence of causation.

4. Discussion

4.1 Level of Teacher Leadership Competency

The overall teacher leadership competency mean of 3.49 suggests that respondents rated their leadership-related competencies very highly across the four measured domains. Because the measure is self-reported, interpret the result as perceived competency rather than direct evidence of observed leadership behavior. Leadership Attributes obtained the highest category mean ($M = 3.50$), followed closely by Collaborative Culture and Instruction and Student Behavior ($M = 3.49$), while Referral Leader had the lowest category mean ($M = 3.48$). The small spread among these means suggests that no single domain clearly dominates the respondents' leadership profile.

Teacher leadership literature emphasizes influence, collaboration, shared responsibility, and contributions to instructional and organizational improvement, rather than limiting leadership to formal positions (Harris & Jones, 2019; Schott et al., 2020). From a distributed perspective, these practices emerge through interactions among people and situations, which helps explain why collaborative and instructional competencies matter even during initial teacher education (Spillane, 2006).

The result is also consistent with Aliu and Kaçaniku (2023), who argue that initial teacher education has an important role in broadening pre-service teachers' understanding of teacher leadership and preparing them to contribute to school improvement. The present findings therefore support continued opportunities for collaborative planning, peer leadership, reflective decision-making, and supervised leadership tasks during professional education and field experiences.

Referral Leader was the lowest-rated category, although the difference from the other categories was small. Rather than treating this as a deficit, the result can identify opportunities for more explicit practice in professional networking, resource sharing, initiative, and leadership beyond routine classroom responsibilities. Teacher leadership development is strengthened when educators receive purposeful preparation for roles that extend beyond immediate classroom implementation (Derrington & Anderson, 2020).

4.2 Professional Teaching Preparedness

Professional teaching preparedness had a descriptive summary mean of 3.50, with category means ranging from 3.48 to 3.50. These results indicate high self-perceptions across relation, knowledge, strategies, environment, engagement with the profession, and teaching self-efficacy. They should not be interpreted as evidence of global readiness because the professional teaching preparedness was developed for classroom teaching preparedness, professional engagement, and self-efficacy (Abraham et al., 2021).

Strategies, Engagement, and Self-efficacy had the highest category means ($M = 3.50$), Relation and Knowledge followed at 3.49, and Environment had the lowest mean at 3.48. Because the differences are very small, the more defensible interpretation is that respondents reported broadly similar levels across the six professional teaching preparedness dimensions rather than substantively different strengths and weaknesses.

The professional teaching preparedness links perceived preparedness in relation to knowledge, strategies, and environment with readiness to engage in the profession and teaching self-efficacy (Abraham et al., 2021). Research on pre-service teacher readiness likewise shows that preparedness for teaching is multidimensional and should be interpreted in relation to concrete classroom and professional demands (Girgin & Akcanca, 2021).

Environment recorded the lowest mean for the professional teaching preparedness category ($M = 3.48$). However, the difference from the highest categories was only .02. Consequently, the finding does not justify a strong claim that classroom environment is a major weakness. It may instead be treated as a separate area for continued practice in classroom organization, communication, and behavior support, alongside the other dimensions.

Overall, the professional teaching preparedness findings suggest strong perceived readiness for classroom teaching within this sample. The interpretation remains bounded by the constructs actually measured and by the use of self-report data; it does not establish global competence, intercultural competence, or readiness for international teaching contexts.

4.3 Differences Across Teacher Education Programs

The omnibus ANOVA indicated a statistically significant program-group difference in teacher leadership competency, $F(4, 173) = 2.933$, $p = .022$, $\eta^2 = .064$, but no significant difference in the professional teaching preparedness summary score, $F(4, 173) = 1.201$, $p = .312$, $\eta^2 = .027$. The leadership effect is modest, and the omnibus test alone establishes only that at least one program mean differs.

Possible pedagogical mechanisms for program-level variation in teacher leadership include differences in the frequency of collaborative planning, peer teaching, supervised practicum responsibilities, classroom-management tasks, and opportunities to lead instructional activities. These experiences align with the view that teacher leadership develops through participation, collaboration, and distributed professional practice (Aliu & Kaçaniku, 2023; Lin, 2022). However, these mechanisms are explanatory possibilities rather than findings about any particular program in the present dataset.

Because the supplied statistical output did not include program-specific means and post hoc comparisons, the study cannot determine whether BSEd-English, BSEd-Mathematics, BSNEd, BPE, or BEED has a higher or lower leadership competency mean than another. We therefore removed the previous program-by-program

explanations. A complete resubmission should add the program means and post hoc results if those analyses were performed.

For the professional teaching preparedness summary score, the non-significant omnibus result indicates that the study did not detect mean differences among the five programs at $\alpha = .05$. State this as an absence of evidence for a difference in this sample, not as proof that the programs are equivalent. Similarities may reflect shared professional education requirements, but that explanation would require direct evidence at the curriculum or program level.

4.4 Relationship Between Teacher Leadership Competency and Professional Teaching Preparedness

The overall correlation between teacher leadership competency and professional teaching preparedness was $r = .191$ ($p = .010$). This is a very weak positive association. Although statistically significant, the relationship accounts for only about 3.6% shared variance ($r^2 \approx .036$), so the practical magnitude is small. The result does not support the stronger claim that increasing teacher leadership competency will necessarily improve teaching preparedness, engagement, or self-efficacy.

Some dimension-level correlations in Table 4 exceed the overall coefficient, warranting further analysis of specific leadership and professional teaching preparedness dimensions. However, the reported coefficients are nonnegative; therefore, the earlier discussion of inverse relationships was not supported by the correlation matrix and has been removed. Future work may use multivariate models and replicated samples to clarify which dimensions are most meaningfully related.

5. Conclusion

The study found very high self-reported teacher leadership competency and high ratings across the six professional teaching preparedness dimensions among 178 fourth-year pre-service teachers. Teacher leadership competency showed a statistically significant but modest difference across teacher education programs, whereas professional teaching preparedness did not show a significant difference across programs. Teacher leadership competency was also associated with professional teaching preparedness, but the relationship was very weak and should not be interpreted causally. The findings therefore support continued development of leadership opportunities and classroom teaching preparedness while also underscoring the need for verified program-level statistics and cautious interpretation of small associations.

6. Study Limitations

The study is limited by its single-institution sample, reliance on self-reported measures, and the absence of program-specific descriptive and post hoc ANOVA output in the supplied manuscript.

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Conflict of Interest Statement

The authors declare no conflict of interest.

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