



Perceived Mentoring Competence and Technical Assistance of Master Teachers as Predictors of Self-Reported Teacher Development

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ABSTRACT

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Master Teachers play a vital role in supporting classroom teachers through mentoring, coaching, feedback, and technical assistance. This study examined whether teachers' perceptions of Master Teachers' mentoring competence and technical assistance were associated with and predictive of self-reported teacher development in Mangatarem I and II Districts, Philippines. A cross-sectional predictive-correlational design was employed involving 172 public school teachers selected through proportionate stratified random sampling. Data were gathered using a researcher-developed

questionnaire that measured perceived mentoring competence, technical assistance, and self-reported teacher development. Descriptive statistics, one-way analysis of variance, Pearson's product-moment correlation, and multiple linear regression were used to analyze the data. Results showed that teachers' perceptions



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of mentoring competence and technical assistance did not differ significantly by length of service or educational attainment. Perceived mentoring competence was positively and moderately related to self-reported teacher development, $r = .46, p < .001$. Technical assistance was also positively and moderately related to self-reported teacher development, $r = .56, p < .001$. The regression model was statistically significant, $F(2, 169) = 41.63, p < .001$, and explained 33% of the variance in self-reported teacher development. Both perceived mentoring competence ($\beta = .24, p = .002$) and technical assistance ($\beta = .41, p < .001$) made significant unique contributions to the model. The findings indicate that both forms of professional support are meaningfully associated with teachers' perceived professional growth. However, because the study used cross-sectional and self-report data, the results should be interpreted as statistical associations rather than causal effects within the districts.

INTRODUCTION

Improving teacher quality remains a central priority in Philippine education because effective instruction, learner engagement, and professional accountability depend largely on teachers' competence and continuous development. Within schools, Master Teachers are expected to support classroom teachers through mentoring, coaching, classroom observation, feedback, professional learning, and technical assistance. Perceived mentoring competence refers to Master Teachers' ability to guide teachers, model effective practices, communicate constructively, and facilitate professional reflection. Technical assistance, in contrast, refers to concrete, needs-based support provided to address identified instructional concerns and performance gaps. These functions are consistent with the Department of Education's professional development framework, which recognizes mentoring, coaching, Learning Action Cells, and standards-based training as mechanisms for strengthening the competence of teachers and school leaders (Achieng, 2024).

Recent studies highlight the contribution of perceived mentoring competence and technical assistance to teacher development. Mok and Staub (2021) found that coaching, mentoring, and supervision improved instructional skills, particularly when mentors explicitly demonstrated their planning and teaching processes. In the Philippine context, Tinaytina (2022) reported a significant relationship between Master Teachers' perceived mentoring competence and teacher performance. Similarly, Agan (2024) found that mentoring structures, pedagogical competence, feedback, and administrative support were associated with the effectiveness of Master Teachers' technical assistance. Within the broader

ASEAN context, Ithnain and Saidin (2021) found that professional development was strongly and positively related to the competence of vocational teachers in Malaysia. Their findings further indicated that active classroom learning, focus on teaching content, collective participation, and coherence were significant predictors of teacher competence. In Vietnam, Pham et al. (2024) examined professional development among primary school professional groups and emphasized the importance of collaborative, school-based professional learning in supporting teachers during educational reform. However, workload demands, limited time, inadequate resources, and connectivity concerns may hinder the consistent delivery of professional support.

Feedback and performance assessment also play an important role in technical assistance. Cadag (2024) emphasized that performance evaluation is more meaningful when followed by appropriate technical assistance, professional learning activities, and structured feedback. Evaluation alone is insufficient to improve teaching practice. Teachers also require timely guidance, opportunities to apply recommendations, and sustained follow-up support.

Despite the growing body of literature, several gaps remain. Conceptually, perceived mentoring competence and technical assistance are often treated as a single form of professional support, although they serve related but distinct functions. Mentoring emphasizes professional relationships, modeling, reflection, and developmental guidance, whereas technical assistance focuses on timely, relevant, and practical interventions for identified instructional needs. Analytically, few studies have examined their unique contributions within a single regression model. Existing research has commonly investigated mentoring, technical assistance, teacher performance, or learner outcomes separately. Contextually, limited district-level evidence is available on these variables among public school teachers in Mangatarem District, including whether perceptions differ according to length of service and educational attainment.

This study examined perceived Master Teachers' mentoring competence and technical assistance as predictors of teacher development among public school teachers in Mangatarem District. Teacher development was assessed through instructional competence, classroom management, learner engagement and outcomes, and professional growth aligned with the Results-Based Performance Management System-Philippine Professional Standards for Teachers (RPMS-PPST). The study further examined the relationships among perceived mentoring competence, technical assistance, and teacher development, as well as differences in teachers' perceptions according to length of service and educational attainment. Through this analysis, the study sought to provide district-level evidence on the individual and combined contributions of perceived mentoring competence and

technical assistance to teacher development and to clarify how these distinct forms of professional support may strengthen teachers' instructional practice and professional growth in Mangatarem District.

FRAMEWORK

This study is anchored in Vygotsky's Sociocultural Theory and Bandura's Social Cognitive Theory. Together, these theories explain how the professional support provided by Master Teachers may contribute to classroom teachers' development. Vygotsky's Sociocultural Theory emphasizes that learning develops through social interaction, collaboration, and guidance from individuals with greater knowledge or experience (Vygotsky, 1978). In this study, Master Teachers serve as more knowledgeable professionals who support classroom teachers through mentoring, professional dialogue, technical guidance, and collaborative problem-solving. Such assistance may help teachers strengthen their knowledge, skills, and practices and gradually become more independent in performing their professional responsibilities.

Bandura's Social Cognitive Theory explains that individuals learn through observation, modeling, feedback, interaction, and self-reflection (Bandura, 1986). Classroom teachers may improve their professional practices by observing effective teaching behaviors demonstrated by Master Teachers, receiving constructive feedback, reflecting on their performance, and applying recommended strategies. Recent studies similarly emphasize that effective mentoring involves professional knowledge, communication, modeling, reflection, and context-responsive support (Michailidi & Stavrou, 2021; Wang et al., 2025).

The two theories provide complementary explanations for the proposed relationships among the study variables. Vygotsky explains how guided support, collaboration, mentoring, and technical assistance may promote professional learning. In contrast, Bandura explains how teachers may acquire and sustain improved professional behaviors through observation, modeling, feedback, practice, and reflection. Recent literature also identifies collaboration, continuing support, coaching, and opportunities to apply learning as important elements of teacher professional development (Sancar et al., 2021; Ventista & Brown, 2023).

The conceptual framework identifies perceived mentoring competence and technical assistance as two separate independent variables. Perceived mentoring competence refers to classroom teachers' perceptions of Master Teachers' ability to provide professional guidance, model effective practices, communicate constructively, encourage reflection, and support continuing professional learning. Technical assistance refers to teachers' perceptions of the timely,

relevant, practical, and needs-based support provided by Master Teachers to address instructional concerns and performance gaps.

Although the two variables represent related forms of professional support, they are conceptually and operationally distinct. Mentoring competence focuses on the professional abilities and approaches that Master Teachers demonstrate when guiding teachers. In contrast, technical assistance focuses on the specific support and interventions provided in response to identified needs. Separate composite scores are therefore computed for the two variables.

The dependent variable is teacher development, which refers to the continuing improvement of teachers' professional knowledge, instructional skills, teaching practices, reflective capacity, and overall performance. The framework posits that higher levels of perceived mentoring competence and technical assistance are associated with greater teacher development.

In the regression model, perceived mentoring competence and technical assistance are entered simultaneously as separate predictors of teacher development. This analysis determines the unique contribution of each predictor while statistically controlling for the influence of the other predictors. It also determines their combined contribution to the explained variance in teacher development. Thus, the regression model translates the assumptions of Vygotsky and Bandura into testable relationships between professional support and teacher development.

Length of service and educational attainment are included only as grouping variables to determine whether teachers' perceptions of mentoring competence and technical assistance differ according to their professional characteristics. They are not treated as predictors, control variables, mediators, or moderators in the regression model. Therefore, the central predictive model remains focused on the individual and combined contributions of perceived mentoring competence and technical assistance to teacher development.

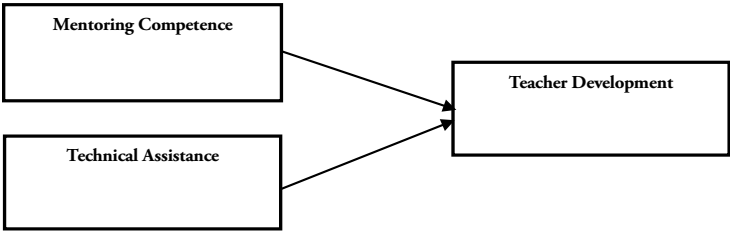


Figure 1. Conceptual framework showing teachers’ perceived mentoring competence and technical assistance as predictors of perceived teacher development.

OBJECTIVES OF THE STUDY

This study aimed to examine the perceived competence of Master Teachers in mentoring and providing technical assistance as predictors of self-reported teacher development. Specifically, it sought to: (1) Determine whether teachers’ perceptions of Master Teachers’ mentoring competence and technical assistance significantly differ according to length of service and educational attainment. (2) Determine whether perceived Master Teachers’ mentoring competence and technical assistance are significantly related to self-reported teacher development. (3) Determine whether perceived Master Teachers’ mentoring competence and technical assistance significantly predict overall self-reported teacher development.

METHODOLOGY

Research Design and Locale

The study used a cross-sectional predictive-correlational research design to examine the relationships of teachers’ perceptions of Master Teachers’ mentoring competence and technical assistance with teacher development. The independent variables were perceived mentoring competence and technical assistance, while the dependent variable was teacher development. The study also examined whether teachers’ perceptions of Master Teachers’ mentoring competence and technical assistance differed according to length of service and highest educational attainment. It further determined whether perceived mentoring competence and technical assistance were significantly related to and predictive of teacher development. Data were collected from selected public schools in Mangatarem I and Mangatarem II Districts. Because the study was non-experimental and conducted at a single point in time, the findings were interpreted as statistical associations and predictive relationships rather than causal effects.

Participants and Sampling

The study population consisted of 299 public school classroom teachers who had received mentoring and technical assistance from Master Teachers. Using Yamane's formula, the required sample size was 172. Proportionate stratified random sampling was applied, with Mangatarem I and Mangatarem II Districts serving as the strata. To account for possible nonresponse and incomplete submissions, 200 eligible teachers were invited to participate. Of these, 172 returned usable questionnaires, yielding an 86% usable response rate. A G*Power 3.1.9.7 analysis indicated that at least 68 respondents were required for multiple regression with two predictors, assuming a medium effect size of $f^2 = .15$, an alpha level of .05, and a statistical power of .80. The two predictors included in the analysis were perceived mentoring competence and technical assistance. Therefore, the final sample of 172 respondents was adequate for the planned multiple regression analysis.

Research Instrument

Data were collected using a researcher-developed questionnaire consisting of three sections. Respondents assessed the Master Teacher who had most directly provided them with mentoring and technical assistance during the current school year. Section I gathered information on the respondents' length of service and highest educational attainment. Section II measured the two independent variables: perceived mentoring competence and technical assistance. The Perceived Mentoring Competence Scale obtained an overall Cronbach's alpha coefficient of .89. In contrast, the Technical Assistance Scale obtained an overall Cronbach's alpha coefficient of .77. Perceived mentoring competence and technical assistance were measured and scored separately because they were treated as two conceptually and operationally distinct independent variables in the study. Section III measured the dependent variable, teacher development. The Teacher Development Scale had an overall Cronbach's alpha of .82. All statements were rated on a 5-point Likert scale. Separate composite scores were computed for perceived mentoring competence, technical assistance, and teacher development by averaging respondents' ratings of the statements on each scale. Higher composite scores indicated higher levels of the corresponding variable. The questionnaire underwent content validation by five experts in educational research, teacher development, and instrument construction. The experts evaluated the instrument for relevance, clarity, appropriateness, representativeness, and alignment with the study's variables. Their comments and recommendations were incorporated into the questionnaire before pilot testing. The revised questionnaire was pilot-tested among 30 public school teachers who were not included in the main study. The

pilot test assessed the clarity and comprehensibility of the statements and the internal consistency of each scale. Item analysis showed that all items met the .30 corrected item-total correlation criterion, with coefficients ranging from .41–.74 for Perceived Mentoring Competence, .33–.62 for Technical Assistance, and .38–.69 for Teacher Development. Since deleting any item did not substantially improve Cronbach's alpha, all items were retained. The obtained Cronbach's alpha coefficients indicated acceptable to good internal consistency for the measures of perceived mentoring competence, technical assistance, and teacher development.

Data Collection and Ethical Considerations

Data collection commenced after obtaining permission from the Schools Division Office and the participating school heads. The printed and online versions of the questionnaire contained identical instructions, wording, item order, response options, and scoring procedures. Before participation, respondents were informed of the study's purpose, procedures, voluntary nature, possible risks and benefits, confidentiality measures, and right to withdraw without penalty. Informed consent was obtained before questionnaire completion. Questionnaires with more than 10% missing responses or evident response-pattern irregularities were predetermined for exclusion. None of the returned questionnaires exceeded this threshold. Isolated missing responses were replaced using the respondent's mean for completed items within the same scale.

To minimize coercion and social desirability bias, the Master Teachers being assessed did not participate in the distribution or collection of questionnaires. Printed questionnaires were returned in sealed envelopes, while online responses were collected through a password-protected form that did not record names or email addresses. Coded identifiers were used to protect respondents' identities. Paper records were stored in a locked cabinet, and electronic files were password-protected and accessible only to the researcher. Data will be retained for five years and subsequently destroyed. The study complied with Republic Act No. 10173, otherwise known as the Data Privacy Act of 2012, and with DepEd Order No. 16, s. 2017, as amended by DepEd Order No. 26, s. 2021, together with applicable institutional research policies (Department of Education, 2017, 2021; Republic Act No. 10173, 2012).

Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences. Frequencies and percentages were used to summarize the respondents' profiles, while means and standard deviations were used to describe perceived mentoring competence, technical assistance, and teacher development. One-way analysis

of variance was used to examine differences in perceived mentoring competence and technical assistance according to length of service and highest educational attainment. Holm–Bonferroni-adjusted significance levels were applied to control the familywise Type I error rate across the related group-comparison tests. Appropriate robust procedures and post hoc tests were used when necessary. Effect sizes were reported using partial eta squared (η^2).

Pearson’s product–moment correlation coefficient was used to examine the relationships of perceived mentoring competence and technical assistance with overall teacher development. Multiple linear regression analysis was subsequently performed to determine whether perceived mentoring competence and technical assistance significantly predicted overall teacher development. Before conducting the inferential analyses, the relevant statistical assumptions were evaluated. For ANOVA, these included the independence of observations, the normality of the residuals, and the homogeneity of variances. For Pearson correlation, linearity, approximate bivariate normality, and the absence of influential outliers were assessed. Regression diagnostics included linearity, residual normality, homoscedasticity, independence of errors, multicollinearity, and influential observations.

RESULTS AND DISCUSSION

Table 1

Differences in Perceived Master Teachers’ Mentoring Competence and Technical Assistance According to Length of Service and Educational Attainment

Variable	Length of Service			Educational Attainment		
	<i>F</i>	<i>p</i>	Partial η^2	<i>F</i>	<i>p</i>	Partial η^2
Perceived Mentoring Competence	1.08	.368	.025	1.89	.114	.043
Technical Assistance	1.42	.229	.033	2.31	.060	.052

Note. For all tests, $df_1 = 4$ and $df_2 = 167$.

The analyses were based on the overall composite scores for perceived mentoring competence and technical assistance. The *p*-values shown in the table are unadjusted. A Holm–Bonferroni correction was applied across the four comparisons, and none of the results were statistically significant after adjustment. Adjusted *p*-values were calculated using the full-precision *p*-values from the statistical output.

Table 1 presents the differences in teachers’ perceptions of Master Teachers’

mentoring competence and technical assistance according to length of service and educational attainment. No statistically significant difference was found in perceived mentoring competence according to length of service, $F(4, 167) = 1.08$, $p = .368$, partial $\eta^2 = .025$. Similarly, technical assistance did not significantly differ across length-of-service groups, $F(4, 167) = 1.42$, $p = .229$, partial $\eta^2 = .033$. In terms of educational attainment, no statistically significant difference was found in perceived mentoring competence, $F(4, 167) = 1.89$, $p = .114$, partial $\eta^2 = .043$. Technical assistance also did not differ significantly by educational attainment, $F(4, 167) = 2.31$, $p = .060$, partial $\eta^2 = .052$. Although the result for technical assistance by educational attainment approached the .05 significance level, it was not statistically significant either before or after the Holm–Bonferroni correction. Therefore, the null hypotheses concerning differences in perceived mentoring competence and technical assistance according to length of service and educational attainment were not rejected.

The findings indicate that teachers perceived similar levels of mentoring competence and technical assistance from Master Teachers regardless of their length of service or educational attainment. The small effect sizes suggest that differences among the groups were limited. Technical assistance according to educational attainment had the largest effect size among the four comparisons. However, the observed difference was not statistically significant. Overall, the findings suggest that Master Teachers’ mentoring competence and technical assistance were perceived relatively consistently by teachers with different professional backgrounds. Nevertheless, professional support should remain responsive to individual teachers’ needs because similar overall perceptions do not necessarily indicate that all teachers receive assistance with the same frequency, quality, or relevance.

Table 2
Correlations of Perceived Mentoring Competence and Technical Assistance with Self-Reported Teacher Development

Predictor Variable	r	95% CI	p
Perceived mentoring competence	.46	[.33, .57]	< .001
Technical assistance	.56	[.45, .65]	< .001

Note. $N = 172$. r = Pearson’s product–moment correlation coefficient.

Table 2 shows that perceived Master Teachers’ mentoring competence and technical assistance were significantly related to overall self-reported teacher development. Perceived mentoring competence had a positive, moderate relationship with overall self-reported teacher development ($r=.46$), 95% CI [.33,

.57], ($p < .001$). Technical assistance also had a positive, moderate relationship with overall self-reported teacher development ($r = .56$), 95% CI [.45, .65] ($p < .001$). These findings indicate that teachers who perceived higher levels of mentoring competence and technical assistance from Master Teachers also reported higher levels of overall self-reported teacher development. Therefore, the null hypothesis stating that perceived Master Teachers' mentoring competence and technical assistance were not significantly related to self-reported teacher development was rejected.

Technical assistance obtained a numerically higher correlation with self-reported teacher development than perceived mentoring competence. However, because the difference between the two correlation coefficients was not formally tested, the findings should not be interpreted as evidence that technical assistance had a significantly stronger relationship with self-reported teacher development. The findings support previous studies emphasizing the importance of coaching, modeling, feedback, classroom observation, and sustained professional support in promoting teachers' professional development (Samundeeswari, 2024; Ventista & Brown, 2023). Nevertheless, because the study used self-reported, cross-sectional, and correlational data, the results indicate statistical associations and do not establish that perceived mentoring competence or technical assistance caused improvements in self-reported teacher development.

Table 3

Multiple Regression Analysis of Perceived Master Teachers' Mentoring Competence and Technical Assistance as Predictors of Overall Self-reported Teacher Development

Predictor	<i>B</i>	<i>SE</i>	95% CI for <i>B</i>	β	<i>t</i>	<i>p</i>	Tolerance	VIF
Constant	1.58	.27	[1.05, 2.11]	—	5.85	< .001	—	—
Perceived mentoring competence	.22	.07	[-.08, .36]	.24	3.14	.002	.70	1.43
Technical assistance	.36	.07	[-.22, .50]	.41	5.14	< .001	.70	1.43

Model summary

$R = .57$, $R^2 = .33$, adjusted $R^2 = .32$, $F(2, 169) = 41.63$, $p < .001$.

Note. $N = 172$. *B* = unstandardized regression coefficient; *SE* = standard error; CI = confidence interval; β = standardized regression coefficient; VIF = variance inflation factor.

Perceived mentoring competence and technical assistance were measured as separate composite predictor scores and entered simultaneously into the regression model. The tolerance and VIF values indicated no evidence of problematic multicollinearity between the predictors.

The regression model was statistically significant, $F(2, 169) = 41.63$, $p < .001$, and accounted for 33% of the variance in overall self-reported teacher development ($R^2 = .33$; adjusted $R^2 = .32$). Both predictors made statistically significant unique contributions to the model. Holding technical assistance constant, a one-unit increase in perceived mentoring competence was associated with a .22-unit increase in overall teacher development, $B = .22$, 95% CI [.08, .36], $\beta = .24$, $p = .002$. Holding perceived mentoring competence constant, a one-unit increase in technical assistance was associated with a .36-unit increase in overall teacher development, $B = .36$, 95% CI [.22, .50], $\beta = .41$, $p < .001$. Technical assistance showed a larger unique association with overall teacher development after controlling for perceived mentoring competence. Its standardized regression coefficient, $\beta = .41$, was numerically larger than that of perceived mentoring competence, $\beta = .24$. However, this difference does not indicate that the two coefficients were statistically different, as no formal test comparing them was conducted.

The findings indicate that higher perceived mentoring competence and greater technical assistance were independently associated with higher reported teacher development. The larger unique association observed for technical assistance may reflect the value of direct, needs-based, and job-embedded professional support, including instructional guidance, feedback, classroom observation, and assistance in applying effective teaching practices. These findings are consistent with research emphasizing sustained coaching, feedback, and collaborative professional learning (Park et al., 2025; Ventista & Brown, 2023). The two-predictor model did not explain the remaining 67% of the variance in overall teacher development. This unexplained variance may be attributable to other professional, personal, organizational, and contextual factors not included in the analysis, as well as measurement error. Because the study used a cross-sectional predictive-correlational design, the findings indicate statistical prediction and association rather than causation. Therefore, the results should not be interpreted as evidence that perceived mentoring competence or technical assistance directly caused improvements in teacher development.

CONCLUSION

Teachers' perceptions of Master Teachers' mentoring competence and technical assistance were positively associated with self-reported teacher development and jointly explained 33% of its variance. Both variables made statistically significant unique contributions to the regression model, indicating that mentoring competence and technical assistance were independently related

to teachers' perceived professional growth. Technical assistance had the larger standardized coefficient, suggesting a stronger unique association within the model; however, the difference between the two coefficients was not formally tested and should not be interpreted as statistically significant.

No statistically significant differences were found in perceived mentoring competence or technical assistance according to teachers' length of service and educational attainment. These findings indicate that teachers from different professional backgrounds generally reported comparable perceptions of the support provided by Master Teachers. Although technical assistance by educational attainment yielded the largest effect size among the group comparisons, the difference remained statistically nonsignificant after the Holm–Bonferroni correction.

Overall, the findings demonstrate that professional guidance, modeling, constructive feedback, and timely, needs-based assistance are meaningfully associated with self-reported teacher development among public school teachers in Mangatarem I and II Districts. The larger unique association of technical assistance highlights the potential value of practical, responsive, and job-embedded support. At the same time, the significant contribution of mentoring competence underscores the importance of sustained professional dialogue and reflective guidance. The study contributes to educational leadership and teacher professional development research by examining mentoring competence and technical assistance as distinct predictors rather than treating them as a single, undifferentiated form of professional support. The finding that both variables explained unique variance in self-reported teacher development advances the existing literature by clarifying that relational and reflective mentoring, and practical, needs-based assistance, are complementary yet analytically distinct dimensions of the professional support provided by Master Teachers. Nevertheless, because the study used cross-sectional and self-report data, the findings establish statistical associations and predictive relationships rather than causal effects. Future research may employ longitudinal designs, objective performance measures, and data from multiple sources to determine whether mentoring competence and technical assistance contribute to measurable changes in teaching practice and professional performance.

TRANSLATIONAL RESEARCH

The translational value of this study lies in using its findings as a preliminary basis for developing a contextualized mentoring and technical assistance framework for Master Teachers in Mangatarem I and II Districts. The significant

associations between perceived mentoring competence, technical assistance, and self-reported teacher development identify professional support practices that may be incorporated into the proposed framework. These practices may include instructional coaching, classroom observation, constructive feedback, professional reflection, needs-based assistance, and sustained follow-up support aligned with the RPMS-PPST. The larger standardized coefficient for technical assistance highlights the relevance of timely, responsive, practical, and job-embedded support. At the same time, the statistically significant unique association of mentoring competence with teacher development emphasizes the importance of professional guidance, modeling, reflective dialogue, and constructive communication. These findings inform efforts to strengthen existing mentoring activities, Learning Action Cell sessions, and professional development programs in the districts.

The proposed framework may serve as a guide for identifying teachers' professional needs, planning appropriate interventions, monitoring the support provided, and conducting follow-up activities. As a concrete translational output, the study proposes a Mentoring and Technical Assistance Implementation Package consisting of a mentoring guide for Master Teachers, a teacher-needs assessment checklist, classroom observation and feedback forms, intervention-planning and follow-up templates, Learning Action Cell session modules, a digital repository of professional development resources, and a monitoring and evaluation instrument. The package may also specify implementation procedures, timelines, responsible personnel, expected outputs, and documentation requirements to promote consistent application across participating schools and support possible adaptation in other districts. However, because the findings were based on cross-sectional and self-report data, the proposed framework and implementation package should be pilot-tested and evaluated before broader implementation. Their feasibility, acceptability, and usefulness may be assessed in relation to instructional competence, classroom management, learner engagement, and professional growth. Future evaluation should also include objective performance indicators and feedback from teachers, Master Teachers, and school leaders.

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Conflicts of Interest: The authors declare no conflict of interest

LITERATURE CITED

- Achieng, M. S. B. (2024). Teacher professional development and learning outcomes in the 21st century. *IJRDO—Journal of Educational Research*, 10(3), 46–54. <https://doi.org/10.53555/er.v10i3.6190>
- Agan, C. I. E. (2024). A mixed method study on the dimensions of teacher mentoring as correlates of technical assistance performance of master teachers: A future-ready mentoring program. *Randwick International of Education and Linguistics Science Journal*, 5(3), 845–883. <https://doi.org/10.47175/rielsj.v5i3.1045>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Cadag, C. E. (2024). The effectiveness of Individual Performance Commitment and Review Form as an evaluation tool to improve teachers' performance: Basis for technical assistance. *International Journal of Multidisciplinary: Applied Business and Education Research*, 5(2), 724–747. <https://doi.org/10.11594/ijmaber.05.02.30>
- Department of Education. (2017, March 20). *Research management guidelines* (DepEd Order No. 16, s. 2017). <https://www.deped.gov.ph/2017/03/20/do-16-s-2017-research-management-guidelines/>
- Department of Education. (2021, June 21). *Amendment to DepEd Order No. 16, s. 2017 (Research Management Guidelines)* (DepEd Order No. 26, s. 2021). <https://www.deped.gov.ph/2021/06/21/june-21-2021-do-026-s-2021-amendment-to-deped-order-no-16-s-2017-research-management-guidelines/>
- Ithnain, I., & Saidin, K. (2021). The effectiveness of professional development model in enhancing teachers' competencies. *MOJEM: Malaysian Online Journal of Educational Management*, 9(4), 32–52. <https://ejournal.um.edu.my/index.php/MOJEM/article/view/32917>
- Michailidi, E., & Stavrou, D. (2021). Mentoring in-service teachers on implementing innovative teaching modules. *Teaching and Teacher Education*, 105, Article 103414. <https://doi.org/10.1016/j.tate.2021.103414>

- Mok, S. Y., & Staub, F. C. (2021). Does coaching, mentoring, and supervision matter for pre-service teachers' planning skills and clarity of instruction? A meta-analysis of (quasi-)experimental studies. *Teaching and Teacher Education*, 107, Article 103484. <https://doi.org/10.1016/j.tate.2021.103484>
- Park, S., Mao, X., & Choi, S. (2025). Understanding the relationship between teacher collaboration and instructional clarity via teacher self-efficacy: A moderated mediation model of organizational commitment. *Teaching and Teacher Education*, 156, Article 104922. <https://doi.org/10.1016/j.tate.2024.104922>
- Pham, K. T., Do, L.-H. T., Dinh, H.-V. T., Nguyen, Q. A. T., Phan, Q.-N., & Ha, X. V. (2024). Professional development of primary school teachers in Vietnamese educational reform context: An analysis from a sociocultural perspective. *Education 3–13*, 52(3), 428–443. <https://doi.org/10.1080/03004279.2023.2168502>
- Republic Act No. 10173. (2012). *Data Privacy Act of 2012*. <https://privacy.gov.ph/data-privacy-act/>
- Samundeeswari, D., Angayarkanni, R., Gopala Raju, S. S. S. V., Rana, N., & Sharma, A. (2024). Teacher professional development: Effective strategies and evaluation methods. *Educational Administration: Theory and Practice*, 30(6), 1726–1733. <https://doi.org/10.53555/kuey.v30i6.5578>
- Sancar, R., Atal, D., & Deryakulu, D. (2021). A new framework for teachers' professional development. *Teaching and Teacher Education*, 101, Article 103305. <https://doi.org/10.1016/j.tate.2021.103305>
- Tinaytina, J. C. (2022). Relationship of master teachers' mentoring competency, teachers' performance, and students' academic achievement. *International Journal of Research Publications*, 95(1), 34–46. <https://doi.org/10.47119/IJRP100951220222871>
- Ventista, O. M., & Brown, C. (2023). Teachers' professional learning and its impact on students' learning outcomes: Findings from a systematic review. *Social Sciences & Humanities Open*, 8(1), Article 100565. <https://doi.org/10.1016/j.ssaho.2023.100565>

- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press. <https://doi.org/10.2307/j.ctvjf9vz4>
- Wang, X., Husu, J., & Toom, A. (2025). What makes a good mentor of in-service teacher education?—A systematic review of mentoring competence from a transformative learning perspective. *Teaching and Teacher Education*, 153, Article 104822. <https://doi.org/10.1016/j.tate.2024.104822>