

# Perceived of School Heads Instructional Supervision and Teacher Continuing Professional Development as Predictors of Teacher Competencies

Juvy Queen L. Aranas

Graduate School Holy Cross of Davao College

DOI: <https://doi.org/10.47772/IJRISS.2026.100500437>

Received: 10 May 2026; Accepted: 15 May 2026; Published: 03 June 2026

## ABSTRACT

Low teacher competencies are disconcerting. The significance of the model for teacher competencies using instructional supervision and teachers continuing professional development as predictors, was verified. Through predictive research design and regression analysis used in analyzing the data from 150 teachers selected through total enumeration, it was found that teacher competencies are strongly and significantly predicted by instructional supervision and continuing professional development. Hence, the Self-Determination Theory was fully supported. Future research may identify other predictors of teacher competencies, while school leaders may improve supervision and professional development based on teacher needs.

**Keywords:** School heads instructional supervision, teacher continuing professional development, predictors of teacher competencies

## INTRODUCTION

### The Problem and Its Setting

Low teacher competencies in school institutions remain a significant concern in the global education landscape. Recent studies highlighted that many education systems continue to report varying levels of teacher competencies, particularly in areas such as pedagogical skills, subject mastery, and instructional practices (Parmigiani et al., 2023). Similarly, global education reports emphasized that disparities in teacher competencies persist despite ongoing reforms and standards, indicating that the issue remains prevalent worldwide (UNESCO, 2024).

In Taiwan, the incompetent teachers are a threat to the reputation of the profession and the quality of education that students receive (Wu et al., 2025). Similarly, in Germany and Turkey, Cevikbaş et al. (2023) reported that many teachers demonstrated low competence in lesson planning and pedagogical knowledge. In Spain, Molina-Moreno et al., (2024) further revealed about teacher incompetence.

In the Philippine context, low teacher competencies continue to be documented in several studies. Research indicates that teachers demonstrate varying levels of competence in areas such as instructional strategies, assessment practices, and content knowledge (Manigbas et al., 2024). Additionally, recent findings highlighted that competency levels among teachers differ across regions and school divisions (DepEd, 2023).

The presence of low teacher competencies in school institutions leads to significant consequences in the education system. It affects the quality of instruction, limits the effectiveness of teaching practices, and influences student learning outcomes. Studies indicate that teacher competence is closely associated with students' academic performance and overall educational achievement (González Hernández et al., 2023). Furthermore, low teacher competencies can hinder the delivery of effective instruction and reduce the overall quality of education provided to learners. These consequences highlight the importance of addressing teacher competency issues in school institutions, hence this study was conducted.

## Significance of the Study

This study supports global literacy and underscores the importance of instructional supervision and continuous professional development in enhancing teacher competencies to ensure quality education. It aligns with Sustainable Development Goal (SDG) 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities), by promoting effective teaching, professional growth, and equal learning opportunities. The findings may guide administrators and policymakers in improving teacher training and supervision, leading to better classroom performance and student outcomes.

## Statement of the Problem

This study aimed to determine the significance of the model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors. Specifically, it aimed to address the following objectives:

1. To determine the levels of perceived of school heads instructional supervision in terms of teacher guidance, teacher support and performance assessment; teacher continuing professional development in terms of renewal of license, promotion, teaching and learning, personal development, financial constraints, schedule, interest of teacher, qualification standards, employer and family support, and existing condition; and teacher competencies in terms of knowledge, skills and attitudes.
2. To determine the significance of the correlation between perceived of school heads instructional supervision, teacher continuing professional development and teacher competencies.
3. To determine the significance of the model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors.

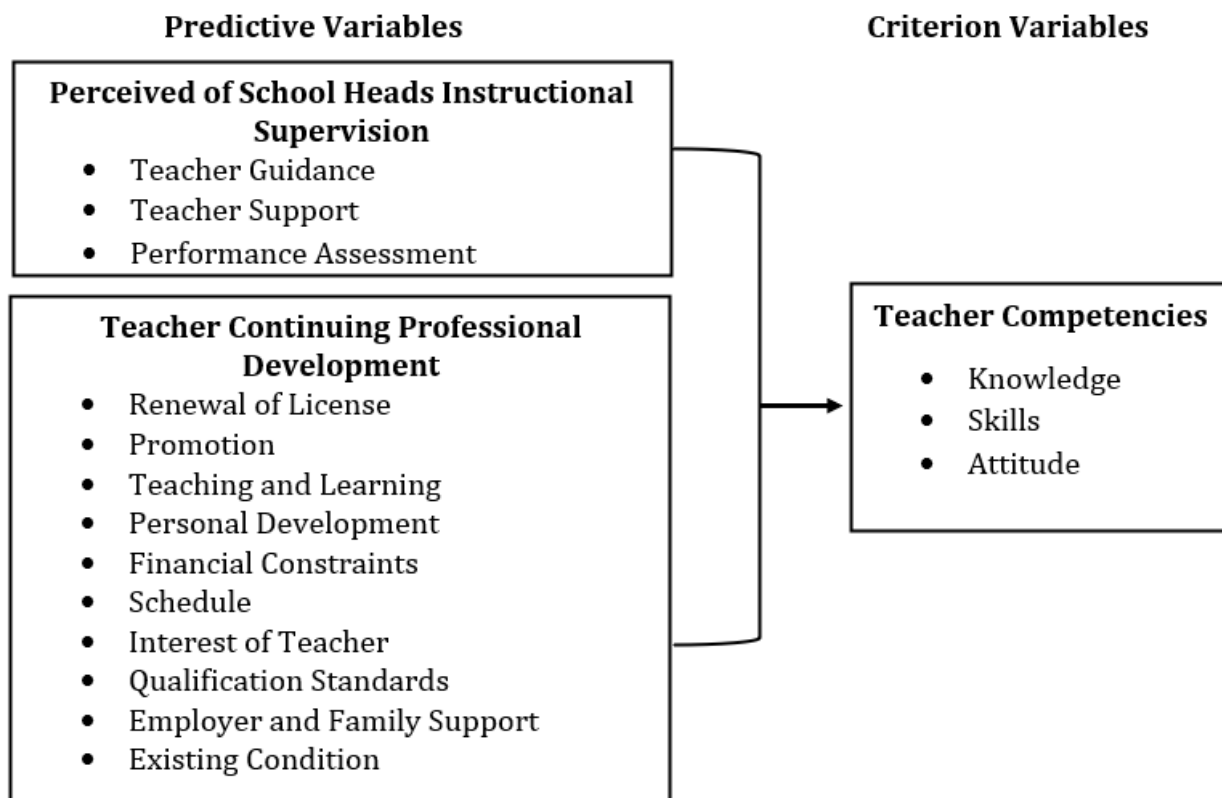
## Hypotheses

H<sub>01</sub>: Perceived of school heads instructional supervision and teacher continuing professional development do not significantly correlate with teacher competencies.

H<sub>02</sub>: The model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors, is not significant.

## Theoretical and Conceptual Framework

This study is anchored on Self-Determination Theory (SDT). The theory posits that individuals are inherently motivated toward growth, learning, and well-being, and that this motivation is enhanced when three basic psychological needs are satisfied: autonomy, competence, and relatedness. The theory emphasizes that people are more likely to be motivated, productive, and fulfilled when they experience a sense of control over their actions, feel capable in their tasks, and maintain meaningful social connections, highlighting that motivation is not solely driven by external rewards but also by internal psychological needs (Deci & Ryan, 2000).



In this study, perceived of school heads instructional supervision variable, indicated by teacher guidance, teacher support, and performance assessment, aligns with competence component in the theory. While, the teacher continuing professional development variable, indicated by renewal of license, promotion, teaching and learning, personal development, financial constraints, schedule, interest of teacher, qualification standards, employer and family support, and existing condition, aligns with autonomy and relatedness component of the theory. Lastly, the dependent variable which is teacher competence, indicated with knowledge, skills and attitude, aligns with macro theory of SDT which says that it is a theory of motivation, personality development, and well-being. Hence, this study is fully anchored on the theory.

## METHOD

Included in this chapter are the research design, locale of the study, the sample and sampling technique, data gathering technique, data analysis technique, and the ethical considerations.

### Research Design

This study employed a predictive research design. To determine the extent to which perceived of school heads instructional supervision and teacher continuing professional development (CPD) predict teacher competency levels. Predictive research, a type of correlational design, is appropriate for examining relationships among variables and assessing their ability to predict outcomes without manipulation (Li, 2024). Data were collected through standardized questionnaires administered to teachers, and statistical tools such as Pearson correlation and multiple regression analysis were used to analyze the relationships and predictive influence of the variables. This design is widely used in educational research due to its ability to analyze multiple variables and provide evidence-based insights for decision-making (Hassan, 2024).

### Locale of the Study

The study was conducted in Region XII, Division of Sarangani, specifically in the Alabel IV District. This location was selected because the schools in the district consistently implement instructional supervision practices by school heads and provide continuing professional development (CPD) programs for teachers. These

conditions make the district an appropriate setting for examining the relationships among perceived of school heads instructional supervision, continuing professional development, and teacher competencies.

### Sample and Sampling Technique

A total of 150 public school teachers from the Department of Education Division of Sarangani, specifically in Alabel IV District, participated in the study. There were 13 public schools in the district, most of which are located in far-flung areas. All respondents were officially employed as regular teachers during the School Year 2025–2026. Given the manageable population size, total enumeration sampling was employed. Total enumeration sampling, also known as total population sampling, is a technique in which all members of a defined population are included in the study, ensuring complete representation without selecting a subset (Sharma, 2023). It is applied when the population is small, accessible, or possesses specific characteristics that require full inclusion, as well as when high accuracy is needed (Etikan & Bala, 2023). This technique offers several advantages, including the elimination of sampling error, increased accuracy and reliability of results, and the collection of comprehensive data that allow for more meaningful analysis (Sharma, 2023; Etikan & Bala, 2023).

### Data Gathering Technique

The survey technique in data gathering was a quantitative method that involved collecting information from respondents through structured instruments such as questionnaires to describe, compare, or explain attitudes, behaviors, or characteristics of a population (Ponto, 2023). It was applied when the researcher aimed to gather data from a large group efficiently, particularly when variables could not be manipulated and when standardized responses were needed for statistical analysis. This technique was widely used in educational and social research due to its ability to collect data from many participants within a short period. Its advantages included cost-effectiveness, efficiency in gathering large amounts of data, ease of administration, and the ability to produce quantifiable and generalizable results when properly designed (Siedlecki, 2023; Ponto, 2023).

This study utilized three adapted and modified survey questionnaires. The first instrument, adapted from Mangadlao and Oropa (2025), measured perceived of school heads instructional supervision, consisting of 30 items with a Cronbach's alpha of 0.954. The second instrument, adapted from Oestar (2021), assessed teacher continuing professional development, composed of 40 items with a Cronbach's alpha of 0.944. The third instrument, adapted from Arazo and Hasanodin (2024), evaluated teacher competencies, containing 30 items with a Cronbach's alpha of 0.972.

### Data Analysis Technique

In this study, the data analysis techniques used were descriptive, correlation, and multiple linear regression analysis. Descriptive data analysis is a statistical method used to summarize and organize data using measures such as frequency, percentage, mean, and standard deviation to describe patterns and trends (Kaur et al., 2023). It is applied to present and understand data clearly without making inferences, and its advantages include simplifying large datasets, improving interpretation, and providing a structured basis for further analysis (Mishra et al., 2023). In this study, the mean and standard deviation statistical tools were used. Moreover, the correlation analysis measures relationships between variables, applied for associations, aiding prediction and analysis (Akoglu, 2023). The Pearson Product-moment correlation statistical tool was used. Lastly, multiple regression analysis predicts outcomes from multiple variables, applied for relationships, offering accuracy and control (Frost, 2023).

The following is the basis for the interpretation of the descriptive level of the variables:

| Scale       | Level    | Perceived of School Heads Instructional Supervision | Interpretation for Teacher Continuing Professional Development | Interpretation for Teacher Competencies |
|-------------|----------|-----------------------------------------------------|----------------------------------------------------------------|-----------------------------------------|
| 1.00 – 1.74 | Very Low | Very poor                                           | Very poor                                                      | Very poor                               |

|             |           |           |           |           |
|-------------|-----------|-----------|-----------|-----------|
| 1.75 – 2.49 | Low       | Poor      | Poor      | Poor      |
| 2.50 – 3.24 | High      | Good      | Good      | Good      |
| 3.25 – 4.00 | Very High | Very Good | Very Good | Very Good |

The standard deviation value is based on the following standard interpretation:

| Range            | Description                     | Interpretation                         |
|------------------|---------------------------------|----------------------------------------|
| $SD \leq 0.50$   | Highly Consistent Responses     | Strong and uniform perception          |
| $SD = 0.51-1.00$ | Moderately Consistent Responses | Acceptable consistency                 |
| $SD = 1.01-1.50$ | Low Consistency Responses       | Differing views or experiences         |
| $SD > 1.50$      | Very Low Consistency Responses  | High variability and lack of consensus |

The interpretation for the strength of the correlation is based on the following standard scheme:

| Computed r                       | Descriptive Interpretation  |
|----------------------------------|-----------------------------|
| $\pm 1.00$                       | Perfect correlation         |
| Between $\pm 0.75$ to $\pm 0.99$ | High correlation            |
| Between $\pm 0.51$ to $\pm 0.74$ | Moderately high correlation |
| Between $\pm 0.31$ to $\pm 0.50$ | Moderately low correlation  |
| Between $\pm 0.01$ to $\pm 0.30$ | Low correlation             |
| 0.00                             | No correlation              |

The following is the standard measure in interpreting strength of the model:

| $\beta$ Value Range   | Strength of the Model |
|-----------------------|-----------------------|
| $\pm 0.00 - \pm 0.09$ | Very Weak             |
| $\pm 0.10 - \pm 0.29$ | Weak                  |
| $\pm 0.30 - \pm 0.49$ | Moderate              |
| $\pm 0.50 - \pm 0.69$ | Strong                |
| $\pm 0.70$ and above  | Very Strong           |

## Ethical Considerations

This study adhered to established ethical standards to ensure the protection and integrity of all respondents. Respect for respondents was upheld through the securing of informed consent, where respondents were fully informed about the purpose and procedures of the study, and their voluntary participation was emphasized. Confidentiality and anonymity were strictly maintained, and respondents were assured that their answers would be used solely for academic purposes. Additionally, no form of coercion was applied, and the respondents were

free to withdraw from the study at any time without consequence. In terms of research integrity, the study obtained approval from a panel of experts to ensure its validity and ethical compliance; secured formal permission from the Department of Education to conduct the research within the school institution; and adhered to the standards set by the Society for Moral Integrity and Legal Ethics to ensure that all procedures followed appropriate legal and moral guidelines.

## RESULTS

Included in this chapter are the results of the study. Specifically, presented are descriptive results, correlation results, regression results, and the summary of findings.

### Descriptive Results

Table 1 is the descriptive table. It contains the variables included in the study, namely: perceived of school heads instructional supervision, teacher continuing professional development, and teacher competencies. It also contains the number of samples, standard deviation, mean and corresponding descriptive level.

Table 1: Descriptive Statistics (N=150)

| Variables                                                  | N          | Standard Deviation | Mean        | Descriptive Level |
|------------------------------------------------------------|------------|--------------------|-------------|-------------------|
| <b>Perceived of School Heads Instructional Supervision</b> | <b>150</b> | <b>.31</b>         | <b>3.70</b> | <b>Very High</b>  |
| Teacher Guidance                                           | 150        | .34                | 3.71        | Very High         |
| Teacher Support                                            | 150        | .31                | 3.68        | Very High         |
| Performance Assessment                                     | 150        | .36                | 3.72        | Very High         |
| <b>Teacher Continuing Professional Development</b>         | <b>150</b> | <b>.29</b>         | <b>3.31</b> | <b>Very High</b>  |
| Renewal of License                                         | 150        | .55                | 3.37        | Very High         |
| Promotion                                                  | 150        | .48                | 3.67        | Very High         |
| Teaching and Learning                                      | 150        | .37                | 3.80        | Very High         |
| Personal Development                                       | 150        | .37                | 3.76        | Very High         |
| Financial Constraints                                      | 150        | .45                | 3.26        | Very High         |
| Schedule                                                   | 150        | .66                | 2.72        | High              |
| Interest of Teacher                                        | 150        | .49                | 3.09        | High              |
| Qualification Standards                                    | 150        | .65                | 2.22        | Low               |
| Employer and Family                                        | 150        | .55                | 3.54        | Very High         |
| Existing Condition                                         | 150        | .43                | 3.63        | Very High         |
| <b>Teacher Competencies</b>                                | <b>150</b> | <b>.30</b>         | <b>3.81</b> | <b>Very High</b>  |

|           |     |     |      |           |
|-----------|-----|-----|------|-----------|
| Knowledge | 150 | .34 | 3.80 | Very High |
| Skills    | 150 | .36 | 3.77 | Very High |
| Attitude  | 150 | .27 | 3.87 | Very High |

Specifically, the table shows that perceived of school heads instructional supervision variable obtained a mean of 3.70, which is described as very high. It indicates that instructional supervision practices are very good in the school setting. All indicators under instructional supervision likewise obtained very high levels, while the corresponding standard deviation ( $SD = .31$ ) further implies that respondents' responses are highly consistent, reflecting a uniform perception of the strong presence of instructional supervision. Furthermore, teacher continuing professional development (CPD) variable obtained a mean of 3.31, also described as very high, indicating that CPD activities are very good by teachers. Five of its indicators are all obtained very high levels, two indicators obtained a high level, and one indicator registered a low level. The standard deviation ( $SD = .29$ ) indicates highly consistent responses and a relatively uniform perception of CPD experiences. Finally, teacher competencies variable obtained a mean score of 3.81, which is described as very high, suggesting that teachers very good strong competencies in their professional practice. All related indicators likewise registered very high levels. The standard deviation ( $SD = .30$ ) implies highly consistent responses across participants, reflecting a uniform view of the high level of teacher competencies.

Perceived of school heads instructional supervision and teacher competencies were consistently interpreted as highly evident and uniformly practiced, reflecting strong leadership and professional capability across schools. In comparison, while teacher continuing professional development (CPD) was also generally perceived as well-implemented, it showed some variations in specific aspects, indicating minor constraints not observed in the other variables.

## CORRELATION RESULTS

Table 2 is the correlation table. It presents the determinant and criterion variables. It also contains r-value, p-value, decision on null hypothesis, and the corresponding interpretation.

Table 2: Correlation Table (N=150)

| Variables                                           | Teachers' Competencies |         |                   |                                         |
|-----------------------------------------------------|------------------------|---------|-------------------|-----------------------------------------|
|                                                     | r-value                | p-value | Decision on $H_0$ | Interpretation                          |
| Perceived of School Heads Instructional Supervision | .636                   | .000    | Reject $H_0$      | Significant Moderately High Correlation |
| Teacher Continuing Professional Development         | .616                   | .000    | Reject $H_0$      | Significant Moderately High Correlation |
| **. Correlation is significant at the 0.05 level.   |                        |         |                   |                                         |

Specifically, the table shows that the correlation between perceived of school heads instructional supervision and teacher competencies obtained a p-value of 0.000, which is lower than the 0.05 level of significance; hence, the null hypothesis is rejected, indicating that the relationship is statistically significant. Furthermore, the r-value of 0.636 indicates a moderately high positive correlation, suggesting that higher levels of instructional supervision are associated with higher levels of teacher competencies. Similarly, the correlation between teacher continuing professional development and teacher competencies also obtained a p-value of 0.000, which is lower

than the 0.05 level of confidence; hence, the null hypothesis was rejected, indicating that the relationship is statistically significant. The r-value of 0.616 likewise indicates a moderately high positive correlation, implying that increased participation in continuing professional development is associated with improved teacher competencies.

Both perceived of school heads instructional supervision and teacher continuing professional development showed significant positive relationships with teacher competencies, indicating that improvements in these factors are associated with higher competency levels. Comparatively, instructional supervision demonstrated a slightly stronger relationship with teacher competencies than continuing professional development.

## REGRESSION RESULTS

Table 3 is the regression table. It presents the determinant and criterion variables. It also includes the unstandardized coefficients (B), standard error, standardized beta coefficients ( $\beta$ ), t-values, p-values, and decision on the hypothesis.

Table 3: Regression Table (N=150)

| Variables                                           | Teachers Competencies       |            |                           |       |         |           |                |
|-----------------------------------------------------|-----------------------------|------------|---------------------------|-------|---------|-----------|----------------|
|                                                     | Unstandardized Coefficients |            | Standardized Coefficients | t     | p-value | Decision  | Interpretation |
|                                                     | B                           | Std. Error | Beta                      |       |         |           |                |
| (Constant)                                          | .934                        | .230       | —                         | 4.050 | .000    | Reject Ho | Significant    |
| Perceived of School Heads Instructional Supervision | .420                        | .065       | .433                      | 6.460 | .000    | Reject Ho | Significant    |
| Teachers Continuing Professional Development        | .400                        | .068       | .392                      | 5.849 | .000    | Reject Ho | Significant    |

Model Summary:  $R = .719$ ,  $R\text{-square} = .517$ ,  $F(3,96) = 78.693$ ,  $p = .000$

Level of significance: 0.05

Decision Rule: Reject  $h_0$  if  $p < 0.05$

**TC = 0.420 ISSH + .400 TCPD + 0.934**

The table specifically shows that the model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors, is  $TC = 0.420 \text{ ISSH} + .400 \text{ TCPD} + 0.934$ . The corresponding p-value obtained of 0.000, which is less than the 0.05 level of significance; hence, the model is significant. Further, the R-squared value of 0.517 indicates that the model strongly predicts the criterion. This implies that for every unit change in perceived of school heads instructional supervision, there is a corresponding 0.420 unit change in teacher competencies. Likewise, for every unit change in teacher continuing professional development, there is a corresponding 0.400 unit change in teacher competencies.

The regression model is statistically significant and demonstrates strong predictive power, indicating that perceived of school heads instructional supervision and teacher continuing professional development jointly explain a substantial proportion of the variance in teacher competencies

## SUMMARY OF FINDINGS

Based on statistical results, it specifically was found that:

1. Perceived of school heads instructional supervision and teacher continuing professional development are significantly correlated with teacher competencies.
2. The model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors, is strong and significant.

## DISCUSSIONS

Discussed in this chapter are the findings of the study. Also, the conclusion and recommendation are presented.

### **Correlation of Perceived of School Heads Instructional Supervision and Teacher Continuing Professional Development with Teacher Competencies**

The finding that perceived of school heads instructional supervision and teacher continuing professional development are significantly correlated with teacher competencies is supported by recent studies emphasizing their critical role in enhancing teaching quality. This result affirms the study of Daigon and Alcopra (2024), which found that instructional supervision practices are significantly associated with teacher efficacy and competence, highlighting the importance of effective supervisory support. Similarly, the current finding corroborates the findings of Sahu (2023), who reported that continuing professional development significantly contributes to improving teacher knowledge, pedagogical skills, and overall competencies. On the other hand, this finding contrasts the study of Camral and Sumayo (2025), which revealed that continuing professional development, when taken as a whole, did not significantly correlate with teacher competencies, suggesting that its impact may depend on the specific type and quality of professional development activities.

### **Teacher Competencies as Predicted by Perceived of School Heads Instructional Supervision and Teacher Continuing Professional Development**

The finding of the study asserting that the model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors, is strong and significant, affirms the study of Sahu (2023), highlighting that well-designed professional development programs strengthen teacher knowledge, skills, and overall competencies. Moreover, the present finding corroborates with the findings of Avidov-Ungar (2025), reporting that continuous professional learning promotes adaptability, reflective practice, and sustained professional growth, reinforcing its strong predictive role in competency development. On the other hand, this finding contrasts the study of Camral and Sumayo (2025), asserting that continuing professional development did not significantly predict teachers' competencies in general, suggesting that its impact may vary depending on the type and quality of professional development activities.

## CONCLUSIONS

Based on the findings, it is concluded that the model for teacher competencies using perceived of school heads instructional supervision and teacher continuing professional development as predictors is strong and significant. Thus, Self-Determination Theory was affirmed, positing that individuals are inherently motivated toward growth, learning, and well-being, and that this motivation is enhanced when three basic psychological needs are satisfied: autonomy, competence, and relatedness. The theory emphasizes that people are more likely to be motivated, productive, and fulfilled when they experience a sense of control over their actions, feel capable in their tasks, and maintain meaningful social connections. This highlights that motivation is not solely driven by

external rewards but also by internal psychological needs

## Recommendations

Based on the conclusion, the following are recommended:

1. Future studies may explore other predictors to account the remaining 48.3% of the variance in the strength of the predictive model for teacher competencies. Applying qualitative research may be an advantage in a finding other predictor based on themes emerging from the exploratory process.
2. School leaders may enhance the quality and relevance of instructional supervision and continuing professional development by aligning these practices with teachers' needs, providing adequate support systems, and ensuring effective implementation to better contribute to the improvement of teacher competencies.

## REFERENCES

1. Akoglu, H. (2023). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, 23(1), 1–3.
2. Alcopra, J., & Daigon, R. (2024). Instructional supervision practices and efficacy of teachers. *International Journal of Multidisciplinary Research and Analysis*, 7(8). <https://doi.org/10.47191/ijmra/v7-i08-13>
3. Amadora, M. G., et al. (2024). Instructional supervision, teachers' professional competence, and students' achievement amid pandemic in SOCCSKSARGEN Region. *IOER International Multidisciplinary Research Journal*.
4. Ambon, J., Alias, B. S., Komariah, A., & Mansor, A. N. (2024). The impact of continuous professional development on teaching quality: A systematic review. *International Journal of Evaluation and Research in Education*, 13(6), 3838–3847. <https://doi.org/10.11591/ijere.v13i6.30427>
5. Arazo, V., & Hasanodin, H. (2024). Competencies and Performance of Teachers in Balo-I District. *Psychology and Education: A Multidisciplinary Journal*, 20(4), 1-1.
6. Camral, R. A., & Sumayo, J. P. (2025). Continuing professional development and teachers' pedagogical competence.
7. Cevikbaş, M., König, J., & Rothland, M. (2023). Empirical research on teacher competence in mathematics lesson planning: Recent developments. *ZDM—Mathematics Education*. Advance online publication. <https://doi.org/10.1007/s11858-023-01487-2>
8. Creswell, J. W., & Creswell, J. D. (2022). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (6th ed.). SAGE Publications.
9. Daigon, M. E., & Alcopra, A. R. (2024). Instructional supervision practices and teachers' efficacy.
10. Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2023). *Effective teacher professional development: Research, policy, and practice*. Learning Policy Institute. <https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report>
11. Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
12. Department of Education (DepEd). (2023). *Philippine professional standards for teachers: Monitoring report*. DepEd Philippines.
13. Etikan, I., & Bala, K. (2023). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, 12(1), 1–5.
14. *Frontiers in Education*. (2025). Continuing professional development in teachers: Insights for designing a formative trajectory in scientific education. *Frontiers in Education*.
15. Frost, J. (2023). *Regression analysis: An intuitive guide for using and interpreting linear models*. Statistics By Jim Publishing.
16. Gnambs, T. (2023). A brief note on the standard error of the Pearson correlation. *Collabra: Psychology*, 9(1), 87615.

17. González Hernández, R., et al. (2023). Teachers' teaching and professional competences assessment. *Teaching and Teacher Education*.
18. Hassan, M. (2024). Correlational research: Methods, types, and examples. *ResearchMethod.net*.
19. He, P., Guo, F., & Abazie, G. A. (2024). School principals' instructional leadership as a predictor of teacher professional development. *Asian-Pacific Journal of Second and Foreign Language Education*, 9, Article 63. <https://doi.org/10.1186/s40862-024-00290-0>
20. Hermoso, J. R., & Brobo, M. A. (2023). Influence of teaching competencies to performance: Basis for professional development. *Asian Journal of Education and Social Studies*, 44(4), 33–46. <https://doi.org/10.9734/ajess/2023/v44i4969>
21. Investopedia. (2023, June 1). Multiple linear regression (MLR): Definition, formula, and example. Retrieved October 23, 2025, from <https://www.investopedia.com/terms/m/mlr.asp>
22. Kırkıç, K. A., Töre, E., Çetin, E., & Uysal, O. K. (2025). Teacher's professional development competencies scale (TPDCS). *SAGE Open*, 15(1). <https://doi.org/10.1177/21582440251382637>
23. Kaur, P., Stoltzfus, J., & Yellapu, V. (2023). Descriptive statistics. *International Journal of Academic Medicine*, 9(1), 41–47.
24. Lee, S. H., & Kim, E. (2022). Descriptive statistics. In *Scholarly Research in Music* (pp. 156-164). Routledge.
25. Li, S. (2024). Correlational research. In *Encyclopedia of psychology*. Springer.
26. Madera, C. G., & Baguio, J. B. (2025). Instructional supervision approaches and professional responsibilities of teachers in public elementary schools. *EPRA International Journal of Research and Development*. <https://doi.org/10.36713/epra23784>
27. Mangadlao, J., & Oropa, J. (2025). Enhancing Supervisory Programs through Instructional Practices of School Heads. *Journal of Interdisciplinary Perspectives*, 3(3), 398-406.
28. Manigbas, R., et al. (2024). Teachers' competencies in instructional strategies and assessment practices. *Philippine Journal of Education*.
29. Merino, C., Pacheco, G., Arenas-Martija, A., Becerra, R., & Solís-Pinilla, J. (2025). Continuing professional development in teachers: Insights for designing a formative trajectory in scientific education. *Frontiers in Education*, 10. <https://doi.org/10.3389/educ.2025.1537502>
30. Mishra, P., Pandey, C. M., Singh, U., & Gupta, A. (2023). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 26(1), 72–78.
31. Molina-Moreno, P., Molero-Jurado, M. del M., Pérez-Fuentes, M. del C., & Gázquez-Linares, J. J. (2024). Analysis of personal competences in teachers: A systematic review. *Frontiers in Education*, 9, Article 1433908. <https://doi.org/10.3389/educ.2024.1433908>
32. Oestar, J. M. Teacher's Continuing Professional Development in the New Normal: Groundwork for Project META (Monitoring, Evaluation, and Technical Assistance Plan).
33. Parmigiani, D., et al. (2023). Assessing global competence in teacher education. *Journal of Education for Teaching*.
34. Ponto, J. (2023). Understanding and evaluating survey research. *Journal of the Advanced Practitioner in Oncology*, 14(2), 168–171.
35. Rural, J. D. (2021). Competency in assessment of selected DepEd teachers in National Capital Region. *European Online Journal of Natural and Social Sciences*, 10(4), pp-639.
36. Ryan, R. (2009). Self-determination theory and well-being. *Social Psychology*, 84(822), 848.
37. Sahu, P. (2023). Continuous professional development of teachers and its impact on teaching competencies.
38. Sahu, A. (2023). Impact of continuous professional development on teacher effectiveness. *International Journal of Research in Education*, 12(4).
39. Siedlecki, S. L. (2023). Research methods: Survey research. *Clinical Nurse Specialist*, 37(1), 8–9.
40. Sharma, G. (2023). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 9(2), 45–50.
41. UNESCO. (2024). Global report on teachers: Addressing teacher shortages and transforming the profession. UNESCO Publishing.
42. Wu, C. C., Yang, C. Y., Hwang, M. S., & Lin, M. Y. (2025). The design and application of a web-based teacher evaluation system for STEM education. *International Journal of Electrical Engineering & Education*, 62(3), 241-251. <https://doi.org/10.1177/0020720919852783>

## ATTACHMENTS

### Questionnaire on the Perceived of School Heads Instructional Supervision and Teacher Continuing Professional Development as Predictors of Teacher Competencies

#### Dear Respondents/General Instructions

This questionnaire is designed to gather data for the study entitled Perceived of School Heads Instructional Supervision and Teachers Continuing Professional Development as Predictors of Teachers Competencies. The purpose of this instrument is to determine the extent of perceived of school heads instructional supervision and continuing professional development, and how these relate to teacher competencies. Please read each statement carefully and indicate your response by placing a check mark (✓) in the column that best represents your perception or experience. There are no right or wrong answers; your honest responses are highly valued. All information you provide will be treated with utmost confidentiality and will be used solely for academic and research purposes.

#### Part I - Perceived of School Heads Instructional Supervision

**Instructions:** This questionnaire aims to assess the **Perceived of School Heads Instructional Supervision** in terms of teachers guidance, teacher support, and teachers performance assessment. Please read each statement carefully and place a check mark (✓) in the column that best describes the extent to which each indicator is evident in your experience or observation. Please refer to the 4-point Likert Scale below:

4 – Strongly Agree

3 – Agree

2 – Disagree

1 – Strongly Disagree

| Indicator                                                                           | 4 | 3 | 2 | 1 |
|-------------------------------------------------------------------------------------|---|---|---|---|
| <b>Teachers Guidance</b>                                                            |   |   |   |   |
| My school head.....                                                                 |   |   |   |   |
| directs teachers to use instructional supervision approaches.                       |   |   |   |   |
| advises teachers to use active learning in the classroom.                           |   |   |   |   |
| frequently visits classrooms for instructional supervision purposes.                |   |   |   |   |
| solicits and provides feedback on instructional supervision methods and techniques. |   |   |   |   |
| uses instructional data to focus on improving the curriculum or instruction.        |   |   |   |   |
| arranges induction training programs for beginning teachers.                        |   |   |   |   |
| assists teachers in lesson planning.                                                |   |   |   |   |
| assists teachers in developing or selecting instructional materials.                |   |   |   |   |

|                                                                                                              |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------|--|--|--|--|
| spreads new teaching methodologies among teachers.                                                           |  |  |  |  |
| facilitates experience-sharing programs between teachers.                                                    |  |  |  |  |
| <b>Teachers support</b>                                                                                      |  |  |  |  |
| My school head.....                                                                                          |  |  |  |  |
| listens and responds to teachers' concerns.                                                                  |  |  |  |  |
| provides opportunities for teachers to share strategies.                                                     |  |  |  |  |
| offers quality professional development.                                                                     |  |  |  |  |
| encourages participation in professional communities.                                                        |  |  |  |  |
| conducts meaningful evaluations.                                                                             |  |  |  |  |
| identifies any instructional limitations of teachers in the classroom.                                       |  |  |  |  |
| encourages school self-evaluation on instructional matters.                                                  |  |  |  |  |
| designs appropriate interventions for teachers' methods and techniques.                                      |  |  |  |  |
| initiates and helps teachers in developing instructional goals and objectives.                               |  |  |  |  |
| aids teachers in conducting action research.                                                                 |  |  |  |  |
| <b>Performance assessment</b>                                                                                |  |  |  |  |
| My school head.....                                                                                          |  |  |  |  |
| ensures that the classroom priorities of teachers are consistent with the goals and direction of the school. |  |  |  |  |
| reviews student work products when evaluating classroom instruction.                                         |  |  |  |  |
| conducts informal observations in the classroom regularly.                                                   |  |  |  |  |
| points out specific strengths in teachers' instructional practices in post-observation feedback.             |  |  |  |  |
| assesses the effectiveness of instruction.                                                                   |  |  |  |  |
| clarifies professional development needs.                                                                    |  |  |  |  |
| provides evidence of growth and valuable data on teachers.                                                   |  |  |  |  |
| explains the purpose and goals of the evaluation.                                                            |  |  |  |  |
| gives the correct comments for teachers' evaluation.                                                         |  |  |  |  |
| 0. sets benchmarks and plans for future evaluation.                                                          |  |  |  |  |

Mangadlao, J., & Oropa, J. (2025). Enhancing Supervisory Programs through Instructional Practices of School Heads. *Journal of Interdisciplinary Perspectives*, 3(3), 398-406.

## Part II – Teachers Continuing Professional Development

**Instructions:** This questionnaire aims to assess the **teachers continuing professional development** in terms of Renewal of License, Promotion, Teaching and Learning, Personal Development, Financial Constraints, Schedule, Interest of Teacher, Qualification Standards, Employer and Family Support, and Existing Condition. Please read each statement carefully and place a check mark (✓) in the column that best describes the extent to which each indicator is evident in your experience or observation. Please refer to the 4-point Likert Scale below:

4 – Strongly Agree

3 – Agree

2 – Disagree

1 – Strongly Disagree

| Indicator                                                           | 4 | 3 | 2 | 1 |
|---------------------------------------------------------------------|---|---|---|---|
| <b>Renewal of License</b>                                           |   |   |   |   |
| As a teacher.....                                                   |   |   |   |   |
| I abide by the CPD Law                                              |   |   |   |   |
| getting a certificate is considered equivalent to eligibility.      |   |   |   |   |
| CPD is a requirement for the renewal of a license                   |   |   |   |   |
| it is a requirement to teach in a public school.                    |   |   |   |   |
| <b>Promotion</b>                                                    |   |   |   |   |
| As a teacher.....                                                   |   |   |   |   |
| I can uplift my position in the organization.                       |   |   |   |   |
| I can increase my salary grade.                                     |   |   |   |   |
| changes in work responsibilities can make the job more attractive.  |   |   |   |   |
| I may receive a financial bonus or other kinds of monetary rewards. |   |   |   |   |
| <b>Teaching and Learning</b>                                        |   |   |   |   |
| As a teacher.....                                                   |   |   |   |   |
| 1. I improve the way I teach.                                       |   |   |   |   |
| 2. I acquire more knowledge and skills.                             |   |   |   |   |
| 3. I update myself on new trends in teaching.                       |   |   |   |   |

|                                                                                                                             |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| 4. I participate in school development initiatives (e.g., curriculum development groups, development of school objectives). |  |  |  |  |
| <b>Personal Development</b>                                                                                                 |  |  |  |  |
| As a teacher.....                                                                                                           |  |  |  |  |
| 1. I become more confident as an educator.                                                                                  |  |  |  |  |
| 2. I earn respect from other people.                                                                                        |  |  |  |  |
| 3. I get recognition from colleagues at work and respect from people.                                                       |  |  |  |  |
| 4. I impart learnings to students, teachers, the community, etc.                                                            |  |  |  |  |
| <b>Financial constraints</b>                                                                                                |  |  |  |  |
| As a teacher.....                                                                                                           |  |  |  |  |
| 1. professional development is too expensive/unaffordable.                                                                  |  |  |  |  |
| 2. the budget is allotted to personal expenses instead.                                                                     |  |  |  |  |
| 3. I cannot afford to have materials for professional development.                                                          |  |  |  |  |
| 4. there are few free CPD programs available.                                                                               |  |  |  |  |
| <b>Schedule</b>                                                                                                             |  |  |  |  |
| As a teacher.....                                                                                                           |  |  |  |  |
| 1. I am preoccupied and tired of paperwork at school.                                                                       |  |  |  |  |
| 2. I do not have time because of family responsibilities.                                                                   |  |  |  |  |
| 3. there is no allotted time for CPD.                                                                                       |  |  |  |  |
| 4. professional development conflicts with my work schedule.                                                                |  |  |  |  |
| <b>Interest of teacher</b>                                                                                                  |  |  |  |  |
| As a teacher.....                                                                                                           |  |  |  |  |
| 1. I do not want to pursue it because professional development is not my priority right now.                                |  |  |  |  |
| 2. there is no relevant professional development that interests me.                                                         |  |  |  |  |
| 3. I do not have the prerequisites (e.g., qualifications, experience, seniority).                                           |  |  |  |  |
| 4. there are other equally important tasks to pay attention to.                                                             |  |  |  |  |
| <b>Qualification Standards</b>                                                                                              |  |  |  |  |

|                                                                                                 |  |  |  |  |
|-------------------------------------------------------------------------------------------------|--|--|--|--|
| As a teacher.....                                                                               |  |  |  |  |
| 1. I cannot meet the intellectual preparation needed for it.                                    |  |  |  |  |
| 2. I do not have the skills and experience required.                                            |  |  |  |  |
| 3. my specialization is not aligned with the scholarship being offered.                         |  |  |  |  |
| 4. there is a seniority protocol/bias in sending participants to trainings.                     |  |  |  |  |
| <b>Employer and Family support</b>                                                              |  |  |  |  |
| As a teacher.....                                                                               |  |  |  |  |
| 1. there is a lack of employer support and encouragement.                                       |  |  |  |  |
| 2. there are no incentives given by the school for participating in such activities.            |  |  |  |  |
| 3. the school head does not permit us to attend continuing professional development activities. |  |  |  |  |
| 4. my family interferes with my participation in CPD initiatives.                               |  |  |  |  |
| <b>Existing Condition</b>                                                                       |  |  |  |  |
| As a teacher.....                                                                               |  |  |  |  |
| 1. I have limited time for professional growth activities.                                      |  |  |  |  |
| 2. financial issues reduce my participation in CPD programs.                                    |  |  |  |  |
| 3. those in remote areas have unequal access to CPD trainings.                                  |  |  |  |  |
| 4. CPD motivation depends on promotion, license renewal, and standards.                         |  |  |  |  |

Oestar, J. M. Teacher's Continuing Professional Development in the New Normal: Groundwork for Project META (Monitoring, Evaluation, and Technical Assistance Plan)

### Part III - Teachers Competencies

**Instructions:** This questionnaire aims to assess the **teachers competencies** in terms of knowledge, skills and attitude. Please read each statement carefully and place a check mark (✓) in the column that best describes the extent to which each indicator is evident in your experience or observation. Please refer to the 4-point Likert Scale below:

4 – Strongly Agree

3 – Agree

2 – Disagree

1 – Strongly Disagree

| Indicator                                                                                                                                                                                   | 4 | 3 | 2 | 1 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|
| <b>Knowledge</b>                                                                                                                                                                            |   |   |   |   |
| As a teacher.....                                                                                                                                                                           |   |   |   |   |
| I apply knowledge of content within and across curriculum teaching areas.                                                                                                                   |   |   |   |   |
| I plan, manage, and implement developmentally sequenced teaching and learning processes to meet curriculum requirements and varied teaching contexts.                                       |   |   |   |   |
| I design, select, organize, and use diagnostic, formative, and summative assessment strategies consistent with curriculum requirements.                                                     |   |   |   |   |
| I develop appropriate teaching and learning resources, including ICT, to address learning goals.                                                                                            |   |   |   |   |
| I answer student questions and provide explanations.                                                                                                                                        |   |   |   |   |
| I incorporate critical thinking and problem-solving activities into the lessons.                                                                                                            |   |   |   |   |
| I integrate real-life examples and applications into the lessons.                                                                                                                           |   |   |   |   |
| I demonstrate up-to-date knowledge in every learning area I develop.                                                                                                                        |   |   |   |   |
| I explain difficult topics in a way that students can understand.                                                                                                                           |   |   |   |   |
| d. I have a full understanding of the subject matter.                                                                                                                                       |   |   |   |   |
| <b>Skills</b>                                                                                                                                                                               |   |   |   |   |
| As a teacher.....                                                                                                                                                                           |   |   |   |   |
| I apply a range of teaching strategies to develop critical and creative thinking, as well as other higher-order thinking skills.                                                            |   |   |   |   |
| I use a range of teaching strategies that enhance learner achievement in literacy and numeracy skills.                                                                                      |   |   |   |   |
| I manage classroom structure to engage learners, individually or in groups, in meaningful exploration, discovery, and hands-on activities across a range of physical learning environments. |   |   |   |   |
| I manage learner behavior constructively by applying positive and non-violent discipline to ensure a learning-focused environment.                                                          |   |   |   |   |
| I use differentiated and developmentally appropriate learning experiences to address learners' gender, needs, strengths, interests, and experiences.                                        |   |   |   |   |
| I integrate numeracy and literacy skills into my lessons.                                                                                                                                   |   |   |   |   |
| I have the ability to communicate effectively with students.                                                                                                                                |   |   |   |   |

|                                                                                          |  |  |  |  |
|------------------------------------------------------------------------------------------|--|--|--|--|
| I demonstrate competence in using educational technology tools and resources.            |  |  |  |  |
| I collaborate with colleagues and share best practices to improve teaching and learning. |  |  |  |  |
| 9. I engage in continuous professional development and lifelong learning.                |  |  |  |  |
| <b>Attitude</b><br><br>As a teacher.....                                                 |  |  |  |  |
| I like to establish a positive and inclusive classroom environment.                      |  |  |  |  |
| I like to encourage creativity and innovation among students.                            |  |  |  |  |
| I feel motivated and inspire students to achieve their best.                             |  |  |  |  |
| I like to use hands-on learning activities with the learners.                            |  |  |  |  |
| I love to give group activities to the learners.                                         |  |  |  |  |
| I love to respect and value the diverse backgrounds of students.                         |  |  |  |  |
| I love to maintain professionalism and ethical conduct.                                  |  |  |  |  |
| I like to be open to feedback and willing to improve.                                    |  |  |  |  |
| I love to empathize with and understand students' individual differences.                |  |  |  |  |
| 10. I love being approachable and open to suggestions for improvement.                   |  |  |  |  |

Arazo, V., & Hasanodin, H. (2024). Competencies and Performance of Teachers in Balo-I District. *Psychology and Education: A Multidisciplinary Journal*, 20(4), 1-1.