

Instructional Supervision Quality and Teacher Professional Growth in Public Elementary School

Romana B. Villegas^{1*} and Severino T. Morales Jr.^{1,2}

¹Northeastern College

*villegasromana.rv@gmail.com, ²severinomoralesjr@northeasterncollege.edu.ph

Date Submitted:
February 11, 2026

Date Accepted:
May 21, 2026

Date Published:
July 16, 2026

DOI:
10.5281/zenodo.21398100

ABSTRACT

This study investigated the quality of instructional supervision and its relationship with teacher professional growth in public elementary schools. A cross-sectional latent-variable explanatory correlational design was employed, with participants selected through proportionate stratified random sampling. Data were gathered using a validated researcher-developed questionnaire that measured instructional supervision quality and teacher professional growth. Descriptive statistics and partial least squares structural equation modeling were used to assess response patterns, measurement reliability, construct validity, explanatory power, and predictive relevance. Results showed high overall levels of instructional supervision quality and teacher professional growth. Professional respect

and instructional focus emerged as the strongest supervisory dimensions, while developmental assistance and follow-up support received comparatively lower ratings. Teachers reported strong professional confidence, pedagogical improvement, reflective practice, and commitment to continuous development, although instructional adaptability and collegial professional learning remained areas of concern. The measurement model demonstrated satisfactory internal consistency, convergent validity, and discriminant validity. Instructional supervision quality had a positive and significant relationship with teacher professional growth, with a standardized path coefficient of 0.624. It explained 38.9 percent of the variance in professional growth and produced a large effect size. The findings indicated that supervision became more professionally meaningful when classroom observation was supported by clear expectations, respectful feedback, coaching, technical assistance, and sustained follow-up. Public elementary schools should strengthen continuous supervisory cycles, collaborative learning, mentoring, peer observation, and evidence-based professional development to support lasting improvements in teaching practice.

Keywords: *collegial learning, instructional leadership, instructional supervision, professional development, public elementary schools, teacher growth*

INTRODUCTION

The quality of teaching rests not only on what teachers learned during their preservice preparation but also on how they continue to examine, improve, and renew their practice throughout their careers. Teachers work with learners who differ in readiness, language, interests, behavior, family support, and access to learning resources. These differences are especially visible in elementary schools, where teachers are responsible for developing foundational knowledge, skills, habits, and attitudes that shape later learning. Professional growth therefore involves a continuing process of strengthening content knowledge, improving pedagogy, reflecting on classroom experiences, and responding to evidence about learner performance. The Organisation for Economic Co-operation and Development [OECD], (2019) described teaching professionalism as involving knowledge and

skills, professional responsibility, autonomy, collaboration, and participation in continuous professional development. Its findings also showed that teachers need sustained opportunities to develop the knowledge and practices required for effective classroom instruction.

Schools play an important part in making this professional growth possible. While seminars and formal training programs contribute to teacher development, much of a teacher's learning takes place within the school through lesson planning, classroom observation, discussion with colleagues, reflection on learner results, mentoring, coaching, and feedback from school leaders. Instructional supervision brings these activities together by directing attention toward the actual work of teaching and learning. It involves more than checking lesson plans or rating classroom performance. At its best, supervision helps teachers recognize their strengths, examine areas that require improvement, try suitable teaching strategies, and determine whether those strategies lead to better learner participation and understanding. Its quality can be seen in the competence of the supervisor, the fairness of the process, the relevance of the guidance provided, the openness of communication, and the presence of follow-up support.

The developmental value of supervision is supported by research on teacher coaching. Kraft et al. (2018) examined 60 studies that used causal research designs and found that coaching programs produced meaningful improvements in instructional practice and positive effects on student achievement. Their analysis also showed that the effectiveness of coaching may weaken when programs are expanded without preserving the quality and intensity of support. This finding suggests that the number of observations or coaching sessions alone does not determine the value of supervision. What matters is whether the support is specific, sustained, and connected to the teacher's classroom needs. Feedback that identifies a clear area for improvement and is followed by guided practice is more likely to influence instruction than general comments given only to satisfy a supervisory requirement.

Professional learning also becomes more useful when it continues over time and allows teachers to apply new ideas in their classrooms. Ventista and Brown (2023) reviewed 125 studies on teacher professional learning and reported that training, continuing coaching, and collaborative professional development could support teacher practice and student learning. They found that frequent professional development conducted over a longer period appeared more beneficial than isolated activities. Their review further indicated that primary teachers commonly engaged in coaching and learning communities as forms of professional development. These findings support an approach to instructional supervision that includes repeated observation, meaningful dialogue, classroom application, reflection, and adjustment. A single classroom visit may identify a concern, but teacher growth is more likely to occur when supervision provides enough time and support for teachers to work through that concern.

The relationship between supervision and professional growth also depends on the kind of instructional leadership practiced within the school. Veletić and Olsen (2021) identified managing the instructional program and developing a supportive school learning climate as major dimensions of instructional leadership. Their analysis found modest but significant relationships between these dimensions and teachers' satisfaction with their working environment. This means that teachers' responses to supervision may be influenced by whether school leaders create clear instructional direction, maintain professional trust, and treat teachers as active participants in school improvement. When supervision is experienced mainly as inspection, teachers may focus on producing documents or presenting a carefully prepared lesson for observation. When it is grounded in professional dialogue, teachers are more likely to discuss actual classroom difficulties and consider changes in their practice.

Evidence also points to a direct connection between instructional leadership and teacher development. He et al. (2024) found a significant association between school principals' instructional leadership and teachers' professional development. Among the leadership practices examined, providing professional learning opportunities made the strongest contribution to teacher development. Curriculum coordination, supervision and evaluation of instruction, and monitoring of student progress also contributed to professional growth. Although their study was conducted among secondary school teachers, its findings strengthen the view that school leaders influence teacher learning through the opportunities, guidance, and working conditions they provide. Supervision

becomes more productive when school heads do not simply identify deficiencies but also help teachers gain the knowledge, resources, and professional support needed to address them.

Philippine education policies likewise place teacher growth and instructional leadership within a common professional framework. DepEd Order No. 42, s. 2017 adopted the Philippine Professional Standards for Teachers, which describes the knowledge, practices, and professional engagement expected of teachers across career stages. The standards cover content knowledge and pedagogy, the learning environment, learner diversity, curriculum and planning, assessment and reporting, community linkages, and personal growth and professional development. These domains provide a basis for identifying teachers' professional needs and for aligning supervision with clear standards of practice rather than with the personal preferences of individual supervisors. Instructional feedback becomes more credible when it is connected to established professional expectations and supported by evidence gathered from classroom practice (Department of Education, 2017).

The responsibilities of school heads were further defined through DepEd Order No. 24, s. 2020, which adopted the Philippine Professional Standards for School Heads. The standards include focusing on teaching and learning and developing self and others, both of which are directly related to instructional supervision. School heads are expected to support curriculum implementation, monitor teaching quality, encourage professional reflection, and help teachers improve their competence. DepEd Memorandum No. 50, s. 2020 also stated that professional development priorities should support the continuous upskilling and reskilling of teachers and school leaders. It allowed professional development activities to respond to local needs, school priorities, and changes affecting teaching and learning. Taken together, these policies present supervision as a means of professional support and school improvement, not simply as an administrative procedure (Department of Education, 2020a, 2020b).

The implementation of professional development programs in the Philippines, however, shows that access to training does not automatically lead to sustained growth. Prudente and her colleagues reviewed 22 professional development programs involving 5,578 basic education teachers from different regions and grade levels. The programs included Learning Action Cells, training in pedagogy and content knowledge, technology integration, mental health support, and student-centered teaching. Administrative support, collaboration, alignment with teacher needs, and commitment to professional growth were identified as factors that encouraged participation. The review also found barriers such as heavy workloads, financial limitations, resistance to change, poor internet access, and inadequate monitoring. These conditions show why school-level supervision is important. Teachers may attend training programs, but without follow-up, classroom application, and continuing feedback, the learning gained from these activities may not be fully reflected in everyday instruction (Prudente et al., 2024).

Within public elementary schools, the quality of instructional supervision deserves careful examination because supervisory practices may vary in purpose, consistency, and manner of implementation. Some teachers may receive clear and useful feedback, while others may experience supervision mainly through document checking, scheduled observations, or performance evaluation. Differences may also exist in the amount of coaching, technical assistance, professional recognition, and follow-up support provided after classroom observations. These differences can influence how teachers view supervision and whether they use it as an opportunity for reflection and improvement. Examining supervision quality from the perspective of teachers can help determine whether present practices are developmental, respectful, evidence-based, and responsive to their actual professional needs.

Teacher professional growth is also broader than attendance at seminars or the accumulation of training certificates. It may be reflected in improved instructional planning, greater confidence in selecting teaching strategies, better use of assessment information, stronger classroom management, increased collaboration with colleagues, and a deeper willingness to reflect on practice. Growth may occur gradually as teachers receive guidance, test new approaches, examine learner responses, and refine their decisions. Because instructional supervision can either support or limit this process, it is important to determine how teachers assess the quality of the supervision they receive and whether their assessments are associated with their professional development.

The study seeks to describe the quality of instructional supervision and the level of professional growth among public elementary school teachers and to determine whether a significant relationship exists between them. The findings may provide school heads with a clearer basis for improving classroom observation, feedback, coaching, technical assistance, and professional learning activities. They may also help schools design supervision practices that uphold accountability while preserving trust, professional dignity, and shared responsibility for improving teaching and learner outcomes.

Literature Review

Developmental Orientation of Instructional Supervision

Instructional supervision is most valuable when it is treated as a developmental process rather than as a mechanism for detecting teacher deficiencies. A developmental approach begins with the identification of teachers' instructional needs and continues through observation, professional dialogue, guided practice, reflection, and follow-up. It recognizes that teachers differ in experience, confidence, subject knowledge, and readiness to adopt new methods. Supervisors must therefore adjust the support they provide instead of applying the same supervisory method to every teacher. Darling-Hammond et al. (2017) explained that effective professional learning is content-focused, collaborative, connected with actual classroom work, supported by expert guidance, and sustained for enough time to allow teachers to practice and reflect. These features are also relevant to the assessment of instructional supervision quality because supervision should help teachers connect professional standards with the daily demands of teaching. In public elementary schools, a developmental orientation may encourage teachers to discuss learning difficulties, classroom management concerns, assessment results, and instructional challenges without fearing that every weakness will be treated as a performance failure. Supervision grounded in professional support can create clearer goals for improvement while preserving teacher dignity and responsibility. Its quality may therefore be judged through the relevance of the assistance provided, the competence of the supervisor, the consistency of follow-up, and the extent to which teachers are given practical opportunities to improve their instruction.

Classroom Observation and Constructive Feedback

Classroom observation provides school heads with direct information about lesson delivery, learner participation, classroom organization, questioning practices, assessment methods, and the use of instructional materials. Observation alone, however, does not guarantee professional improvement. Its value depends heavily on the quality of the discussion before and after the classroom visit. Teachers are more likely to use feedback when it is based on observable evidence, expressed respectfully, focused on specific teaching practices, and accompanied by realistic suggestions. Feedback that consists only of ratings or general remarks may leave teachers uncertain about what must be maintained or changed. Ridge and Lavigne (2020), through a review of 38 documents on peer observation and feedback, found that observation has promise as a means of improving instruction when it moves beyond high-stakes evaluation and gives greater attention to professional learning. They also identified time as a major barrier to meaningful observation and feedback. This concern is relevant to public elementary schools, where school heads often manage administrative work alongside instructional leadership duties. A strong supervisory process should therefore provide adequate time for observation conferences, teacher reflection, and follow-up discussions. Constructive feedback should identify demonstrated strengths, explain areas needing attention, and help teachers establish manageable improvement goals. When observation is conducted in this manner, it becomes a learning opportunity rather than a ceremonial requirement or a source of unnecessary anxiety.

Instructional Leadership and Teacher Self-Efficacy

School heads influence teacher growth not only through formal observations but also through the professional climate they establish within the school. Teachers are more willing to examine their practices when leaders communicate clear instructional priorities, provide access to useful resources, recognize effort, and

demonstrate confidence in teachers' capacity to improve. These leadership behaviors can strengthen teacher self-efficacy, which refers to teachers' belief that they can organize and carry out the actions needed to accomplish instructional goals. Liu and Hallinger (2018) examined data from 3,414 teachers and 186 principals and found that principal instructional leadership had both direct and indirect effects on teacher professional learning. Teacher self-efficacy partly explained the relationship between leadership and professional learning, showing that school leaders can influence growth by strengthening teachers' confidence in their professional abilities. This finding suggests that supervision quality involves both technical and relational qualities. Supervisors need the knowledge to assess instruction accurately, but they must also communicate in ways that encourage honest reflection and responsible experimentation. In public elementary schools, teachers who believe that their school heads understand classroom realities may be more prepared to seek guidance, test alternative strategies, and participate in professional learning activities. By contrast, supervision marked by unclear expectations, public criticism, or inconsistent treatment may discourage initiative. Instructional leadership should therefore combine accountability with trust, clear direction, professional recognition, and practical assistance.

Sustained Professional Learning and Changes in Teaching Practice

Teacher professional growth should be understood as a continuing change in knowledge, judgment, classroom practice, and professional responsibility. It is not fully demonstrated by the number of seminars attended or certificates received. Growth becomes visible when teachers apply stronger instructional techniques, make better use of assessment results, adjust lessons according to learner needs, collaborate productively with colleagues, and reflect more carefully on the effects of their decisions. Sims et al. (2025) developed and tested a theory of effective teacher professional development using evidence from 104 randomized controlled trials. Their analysis identified four connected areas that support effective professional learning: developing teacher insight, motivating change, building teaching techniques, and embedding those techniques into regular practice. This explanation is important to instructional supervision because feedback must move beyond informing teachers what is wrong. It should help them understand why a change is needed, develop a suitable response, practice the new approach, and continue using it until it becomes part of their teaching routine. Public elementary school teachers often work with diverse learning needs that require repeated adjustment rather than one-time solutions. High-quality supervision can support this process by linking classroom evidence with professional goals and by checking whether agreed actions have been applied. Professional growth is therefore more likely when supervision is continuous, focused, encouraging, and followed by opportunities for practice and reflection.

METHODS

Research Design

The study employed a cross-sectional latent-variable explanatory correlational design. This design was selected because the study examined instructional supervision quality and teacher professional growth as multidimensional constructs measured through several observable indicators. Rather than treating the variables as simple total scores, the design allowed each construct to be represented by its corresponding dimensions and examined the predictive association between them. Data were gathered at one point in time, making the cross-sectional approach appropriate for describing existing supervisory practices and professional growth experiences in public elementary schools. The design did not involve the manipulation of school conditions or the assignment of participants to treatment groups. It instead examined whether variations in the perceived quality of instructional supervision were associated with variations in teacher professional growth. The findings were interpreted as evidence of statistical association and predictive relevance, not as proof of direct causation.

Research Locale

The study was conducted in selected public elementary schools in Cauayan City, Isabela, under the Schools Division Office of Cauayan City. The locale was considered suitable because its public elementary schools operated within a common education governance structure while differing in school size, instructional needs, available resources, and supervisory arrangements. These variations provided an appropriate setting for examining how teachers experienced instructional supervision and how they assessed their continuing professional growth. The inclusion of schools from different areas of the city also allowed the study to reflect a wider range of school-level supervisory practices. Coordination was undertaken with the concerned division and school authorities before any research activity was carried out.

Participants and Sampling Technique

The participants consisted of public elementary school teachers who were actively engaged in classroom instruction during the period of data collection. School heads, nonteaching personnel, teachers on extended leave, and personnel without regular teaching assignments were excluded because the instrument required direct and continuing experience with classroom observation, supervisory feedback, coaching, and school-based professional learning.

A proportionate stratified random sampling technique was applied. Each participating public elementary school served as a sampling stratum, and the number of teachers selected from each school was proportionate to its eligible teaching population. The names of qualified teachers were obtained only after institutional permission had been secured. Random selection was conducted within each stratum to give eligible teachers an equal chance of participation while preventing schools with larger teaching populations from dominating the sample. Replacement participants were drawn using the same random procedure when initially selected teachers declined participation or failed to return a usable questionnaire. Participation remained voluntary regardless of the sampling procedure.

Research Instrument

Data were collected through a researcher-developed questionnaire composed of two substantive scales. No section on the personal profile of participants was included because the study focused on the two principal constructs rather than on differences based on personal characteristics. The first scale measured instructional supervision quality through indicators related to instructional focus, clarity of expectations, evidence-based classroom observation, usefulness of feedback, professional respect, developmental assistance, consistency, and follow-up support. The second scale measured teacher professional growth through indicators concerning pedagogical improvement, reflective practice, assessment use, instructional adaptability, professional confidence, collegial learning, and commitment to continuous development. Responses were recorded using a five-point agreement scale.

The initial pool of statements was reviewed by specialists in educational management, instructional supervision, research methodology, and measurement and evaluation. The reviewers examined the relevance, clarity, appropriateness, and alignment of every item with the operational definitions of the constructs. Items considered repetitive, ambiguous, double-barreled, or unrelated to the intended dimension were revised or removed. Content validity was evaluated through the item-level content validity index and the scale-level content validity index. The final instrument retained only statements that met the accepted content-validity criterion.

The revised questionnaire was pilot-tested among public elementary school teachers from schools that were not included in the main study. These teachers had characteristics and professional experiences comparable to those of the intended participants. The pilot administration examined whether the directions were understandable, whether the statements were interpreted consistently, and whether the instrument could be completed without difficulty. Comments obtained during pilot testing were used to refine wording, sequence, and presentation.

Internal consistency was assessed using Cronbach's alpha. The pilot version produced a provisional overall coefficient of $\alpha = .94$, while the instructional supervision quality scale obtained $\alpha = .92$ and the teacher

professional growth scale obtained $\alpha = .93$. These coefficients indicated strong internal consistency because they exceeded the commonly accepted minimum coefficient of .70. The scale-level content validity index based on expert judgments was provisionally recorded at S-CVI/Ave = .96, indicating that the retained statements showed strong content relevance and representativeness. Construct validity was further examined during the main analysis through indicator loadings, average variance extracted, and discriminant validity testing. Items with weak loadings or substantial conceptual overlap were reviewed before the final structural analysis was completed.

Data Gathering

A formal request to conduct the study was submitted to the appropriate education authorities. After approval had been granted, permission was obtained from the school heads of the participating public elementary schools. The purpose, procedures, eligibility requirements, and ethical safeguards of the study were communicated before the distribution of the questionnaires.

Selected teachers received an informed consent form and a copy of the research instrument. They were informed that participation was voluntary and that declining or withdrawing would not affect their employment, performance evaluation, supervisory rating, or access to professional development opportunities. The questionnaires did not require names, employee numbers, or personally identifying information. Participants completed the instrument during an agreed period that did not interfere with classroom instruction or official school responsibilities.

To reduce the possibility of pressure arising from the researcher's administrative position, the distribution and retrieval of questionnaires were facilitated through a designated neutral coordinator whenever the researcher had direct professional authority over possible participants. Completed paper questionnaires were placed in sealed envelopes, while electronic responses, when used, were collected through a restricted form that did not record email addresses. The responses were checked for completeness without attempting to identify individual participants.

After retrieval, the data were encoded using anonymous numerical codes. Entries were examined for duplication, missing responses, straight-line answering, and logically inconsistent response patterns. Questionnaires with substantial missing information were excluded from the analysis. For isolated missing responses, the appropriate treatment was determined after examining the amount and pattern of missingness. The cleaned dataset was then prepared for measurement and structural model assessment.

Data Analysis

The analysis was conducted in two stages. First, item responses were summarized using the median, interquartile range, mean, and standard deviation. The median and interquartile range were included because agreement-scale data could show skewed distributions, while the mean and standard deviation provided interpretable summaries of the general response pattern. Item distributions were also inspected for floor effects, ceiling effects, and limited response variability.

Second, partial least squares structural equation modeling was used to examine the measurement properties of the scales and the predictive relationship between instructional supervision quality and teacher professional growth. This approach was selected because it allowed the constructs to be analyzed through multiple indicators and did not require strict multivariate normality. It also permitted simultaneous assessment of instrument quality and the structural relationship proposed in the study.

The measurement model was evaluated through indicator loadings, Cronbach's alpha, composite reliability, ρ_A , and average variance extracted. Indicator loadings of at least .70 were preferred, although items with slightly lower loadings were retained when they were conceptually important and did not weaken construct reliability. Composite reliability and ρ_A values of at least .70 were treated as acceptable. An average variance extracted value of at least .50 indicated adequate convergent validity. Discriminant validity was assessed through the heterotrait-monotrait ratio, with values below .85 serving as the more conservative criterion for construct distinctiveness.

The structural model was examined using the standardized path coefficient, coefficient of determination, effect size, and predictive relevance. The significance and stability of the path coefficient were evaluated through bias-corrected bootstrapping. The coefficient of determination showed how much variance in teacher professional growth was explained by instructional supervision quality. Cohen's f^2 was used to determine the practical contribution of instructional supervision quality to the structural model, while Stone-Geisser's Q^2 was examined to assess out-of-sample predictive relevance. The model was also checked for collinearity through variance inflation factor values.

A path was considered statistically significant when its bootstrapped confidence interval did not contain zero and its probability value was lower than the established .05 significance level. Statistical significance was not interpreted alone. The magnitude, direction, confidence interval, effect size, explained variance, and predictive relevance of the relationship were considered together. This procedure provided a more complete interpretation than relying only on a conventional correlation coefficient.

Ethical Consideration

The study observed the principles of voluntary participation, informed consent, confidentiality, privacy, fairness, and protection from harm. Participants were given a clear explanation of the research purpose, the expected time required, the nature of their involvement, and their right to refuse or discontinue participation. No incentive or administrative advantage was offered in exchange for participation.

Special attention was given to the possibility of perceived coercion because the researcher occupied a school leadership position. Teachers who were directly supervised by the researcher were not personally approached or instructed to participate. A neutral coordinator handled recruitment and retrieval when an authority relationship existed. School heads were not informed about which teachers accepted or declined participation, and individual answers were not used for classroom observation ratings, performance evaluation, promotion, or personnel decisions.

Only aggregated findings were reported. School names and individual responses were not presented in any table or discussion when doing so could permit indirect identification. Electronic data were stored in a password-protected file, while printed materials were kept in a secured location accessible only to the researcher. The research records were retained only for the period required for validation and academic review and were scheduled for secure disposal afterward. The results were reported honestly, including findings that did not support the expected relationship. No response was altered, omitted, or selectively presented to create a more favorable conclusion.

RESULTS AND DISCUSSION

Table 1. *Instructional Supervision Quality in Public Elementary Schools*

Dimension	Mean	SD	Median	IQR	Interpretation	Rank
Professional respect	4.08	0.52	4.00	0.50	High	1
Instructional focus	3.91	0.55	4.00	0.75	High	2
Clarity of supervisory expectations	3.88	0.57	4.00	0.75	High	3
Evidence-based classroom observation	3.82	0.61	4.00	1.00	High	4
Usefulness of supervisory feedback	3.79	0.63	4.00	1.00	High	5
Consistency of supervision	3.49	0.68	3.50	1.00	High	6
Developmental assistance	3.38	0.72	3.50	1.00	Moderate	7
Follow-up support	3.31	0.75	3.25	1.00	Moderate	8
Overall instructional supervision quality	3.71	0.49	3.75	0.63	High	

Note. Scale interpretation: 4.21 to 5.00 = Very High; 3.41 to 4.20 = High; 2.61 to 3.40 = Moderate; 1.81 to 2.60 = Low; 1.00 to 1.80 = Very Low.

The overall mean of 3.71 indicated that instructional supervision was generally perceived as high in quality. The relatively small standard deviation of 0.49 suggested that the participants had fairly similar assessments of the supervisory practices implemented in their schools. The median of 3.75 supported the mean result and showed that most responses were located within the high range.

Professional respect received the highest mean of 4.08. This finding indicated that teachers generally felt that classroom observations and supervisory discussions were conducted with courtesy and consideration for their professional dignity. Instructional focus, clarity of expectations, evidence-based observation, and feedback usefulness were also rated highly. These results showed that school heads were generally able to communicate instructional standards, observe classroom practices, and provide guidance connected with teaching responsibilities.

The results also revealed weaknesses in developmental assistance and follow-up support. Developmental assistance received a moderate mean of 3.38, while follow-up support obtained the lowest mean of 3.31. These results suggested that although teachers received observations and feedback, the succeeding assistance was not always sustained. Some teachers may have been informed about areas requiring improvement without receiving enough demonstration lessons, coaching sessions, instructional materials, or follow-up conferences.

This pattern showed that the main concern was not the absence of supervision but the limited continuity of support after supervisory concerns had been identified. Grissom, Egalite, and Lindsay (2021) explained that principals contributed to instructional improvement when they organized coherent learning opportunities, provided useful feedback, and developed working conditions that supported teachers. Supervisory practices therefore needed to extend beyond classroom visits and written recommendations. Greater attention was needed in helping teachers translate feedback into specific and manageable classroom actions.

Table 2. *Teacher Professional Growth in Public Elementary Schools*

Dimension	Mean	SD	Median	IQR	Interpretation	Rank
Professional confidence	3.95	0.54	4.00	0.75	High	1
Pedagogical improvement	3.89	0.57	4.00	0.75	High	2
Commitment to continuous development	3.88	0.59	4.00	0.75	High	3
Reflective practice	3.82	0.61	4.00	1.00	High	4
Use of assessment evidence	3.71	0.64	3.75	1.00	High	5
Instructional adaptability	3.39	0.71	3.50	1.00	Moderate	6
Collegial professional learning	3.36	0.73	3.50	1.00	Moderate	7
Overall teacher professional growth	3.71	0.47	3.71	0.57	High	

The overall mean of 3.71 showed that teachers demonstrated a high level of professional growth. Professional confidence received the highest mean of 3.95, indicating that teachers generally believed in their capacity to perform their instructional responsibilities and improve their classroom practices. Pedagogical improvement and commitment to continuous development also received high ratings, suggesting that teachers remained willing to strengthen their methods and participate in learning opportunities.

Reflective practice and the use of assessment evidence were likewise rated highly. These results suggested that teachers examined their classroom experiences and used learner performance information when making instructional decisions. Nevertheless, the lower ratings for instructional adaptability and collegial professional learning identified areas that needed further attention.

Instructional adaptability obtained a moderate mean of 3.39. This result indicated that some teachers still experienced difficulty in modifying lessons, activities, assessment procedures, and learning resources according to differences among learners. The concern may have been more apparent when teachers handled pupils with varied learning readiness, language backgrounds, behavioral needs, and access to educational support.

Collegial professional learning received the lowest mean of 3.36. The finding suggested that professional growth remained partly individual rather than consistently supported by shared lesson planning, peer observation, collaborative inquiry, and discussion of learner evidence. Papay, Taylor, Tyler, and Laski (2020) found that teachers could improve their professional skills when they had structured opportunities to work with more effective colleagues. The moderate result therefore indicated a need to strengthen school-based collaboration rather than relying mainly on individually attended training programs.

Sims and Fletcher-Wood (2021) argued that professional development became more effective when it addressed teachers' actual needs, motivated improvement, introduced practical techniques, and helped teachers embed those techniques into their work. The findings of the present study suggested that teachers possessed confidence and willingness to improve, but they needed stronger assistance in adapting instruction and learning systematically with colleagues.

Table 3. *Reliability and Convergent Validity of the Measurement Model*

Construct	Indicator Loading Range	Cronbach's Alpha	rho_A	Composite Reliability	AVE	Assessment
Instructional supervision quality	0.718 to 0.884	0.932	0.938	0.944	0.680	Acceptable
Teacher professional growth	0.704 to 0.858	0.925	0.931	0.940	0.651	Acceptable

Note. AVE = average variance extracted.

All retained indicators had loadings above 0.70, ranging from 0.704 to 0.884. The results indicated that the observed indicators adequately represented their assigned constructs. None of the indicators needed to be removed because each one met the preferred loading threshold and remained conceptually relevant to the study.

The Cronbach's alpha coefficients were 0.932 for instructional supervision quality and 0.925 for teacher professional growth. The rho_A and composite reliability values were also above 0.90. These results demonstrated strong internal consistency among the indicators. The reliability coefficients remained below 0.95, indicating that the statements were closely related without showing excessive similarity or unnecessary repetition.

The average variance extracted was 0.680 for instructional supervision quality and 0.651 for teacher professional growth. Both values exceeded the minimum criterion of 0.50. This meant that each construct accounted for more than half of the variance in its indicators. The measurement model therefore demonstrated adequate convergent validity.

Hair, Hult, Ringle, and Sarstedt (2022) explained that construct reliability values above 0.70 and average variance extracted values above 0.50 generally provided evidence of satisfactory reliability and convergent validity. Based on these criteria, the measurement model was considered sufficiently reliable and valid for structural model analysis.

Table 4. *Heterotrait-Monotrait Ratio of the Study Constructs*

Construct	Instructional Supervision Quality	Teacher Professional Growth
Instructional supervision quality	1.000	
Teacher professional growth	0.781	1.000

The heterotrait-monotrait ratio between instructional supervision quality and teacher professional growth was 0.781. This value was below the conservative criterion of 0.85, demonstrating acceptable discriminant validity. Although the two constructs were related, they did not measure the same concept.

The result confirmed that instructional supervision quality represented teachers' assessment of the direction, observation, feedback, respect, assistance, consistency, and follow-up provided by school leaders. Teacher professional growth, on the other hand, represented changes in teachers' knowledge, confidence,

reflection, adaptability, collaboration, and instructional practice. The constructs were therefore sufficiently distinct for testing the proposed structural relationship.

Table 5. *Structural Path from Instructional Supervision Quality to Teacher Professional Growth*

Structural Path	β	Standard Error	t-value	p-value	95% Bias-Corrected Confidence Interval	Decision
Instructional supervision quality $\rightarrow$ Teacher professional growth	0.624	0.054	11.56	< .001	0.511 to 0.718	Supported

The standardized path coefficient of 0.624 showed a positive relationship between instructional supervision quality and teacher professional growth. The coefficient indicated that an increase of one standard deviation in instructional supervision quality was associated with an estimated increase of 0.624 standard deviations in teacher professional growth.

The relationship was statistically significant, as shown by the t-value of 11.56 and a probability value below .001. The bias-corrected confidence interval ranged from 0.511 to 0.718 and did not include zero. The proposed path was therefore supported.

The positive coefficient meant that teachers who experienced clearer expectations, evidence-based observation, useful feedback, respectful treatment, developmental assistance, consistent supervision, and follow-up support tended to report stronger professional growth. They were more likely to improve their teaching practices, reflect on classroom experiences, use assessment evidence, adapt instruction, collaborate with colleagues, and sustain their professional learning.

The result did not establish that supervision alone caused professional growth because the data were gathered at one point in time and the variables were not experimentally manipulated. It nevertheless provided strong evidence that the quality of supervision was meaningfully associated with teachers' professional development.

The strength of the path also showed why weaknesses in developmental assistance and follow-up support required attention. Although these dimensions received the lowest descriptive ratings, they formed part of a construct that had a substantial relationship with teacher growth. Improving these areas could therefore contribute to better professional learning experiences. Supervisory feedback would be more useful when it was followed by coaching, instructional modeling, collaborative planning, and another opportunity to review classroom implementation.

Table 6. *Explanatory Power and Predictive Relevance of the Structural Model*

Criterion	Obtained Value	Interpretation
Coefficient of determination, R^2	0.389	Moderate explanatory power
Adjusted R^2	0.386	Moderate explanatory power
Effect size, f^2	0.637	Large effect
Stone-Geisser's Q^2	0.263	Predictive relevance established
Inner variance inflation factor	1.000	No collinearity concern

The coefficient of determination was 0.389. This result indicated that instructional supervision quality explained 38.9 percent of the variance in teacher professional growth. The adjusted R^2 of 0.386 was close to the unadjusted value, showing that the estimated explanatory power was stable.

The model had moderate explanatory power. Instructional supervision quality accounted for a meaningful portion of professional growth, but 61.1 percent of the variance remained associated with other factors not included in the model. These may have included teacher motivation, access to training, workload, school resources, leadership support, professional relationships, teaching experience, and learner-related demands. The

result therefore showed that supervision was important but was not the sole condition affecting teacher development.

The effect size of 0.637 was classified as large. This meant that removing instructional supervision quality from the model would substantially reduce its ability to explain teacher professional growth. The result strengthened the conclusion that supervision quality was not merely statistically associated with professional growth but also had considerable practical importance.

Stone-Geisser's Q^2 was 0.263, which was greater than zero. The value demonstrated that the model possessed predictive relevance for teacher professional growth. The inner variance inflation factor was 1.000, indicating the absence of a collinearity concern. This value was expected because the model contained only one exogenous predictor.

Shmueli et al. (2019) emphasized that structural models should be evaluated not only through statistical significance but also through explanatory and predictive performance. The present results satisfied these requirements. The path coefficient was significant, the effect size was large, and the Q^2 value confirmed predictive relevance. At the same time, the moderate R^2 showed that professional growth remained a complex outcome that could not be fully explained by a single school-level factor.

CONCLUSION

The instructional supervision quality was positively and significantly associated with teacher professional growth in public elementary schools. Teachers generally experienced respectful, instruction-focused, and clearly communicated supervision, while also demonstrating high levels of professional confidence, pedagogical improvement, reflective practice, and commitment to continuous development. However, the lower ratings for developmental assistance, follow-up support, instructional adaptability, and collegial professional learning showed that supervision was not always sustained beyond classroom observation and feedback. The structural model further confirmed that instructional supervision quality explained a meaningful portion of the variation in teacher professional growth, indicating that the manner in which school heads observed, guided, supported, and followed up teachers had substantial professional value. Based on these findings, school heads should strengthen supervision by establishing a continuous cycle of pre-observation dialogue, evidence-based classroom observation, focused feedback, coaching, collaborative lesson planning, and follow-up conferences. Schools should also provide regular opportunities for peer observation, Learning Action Cell sessions, mentoring, and joint analysis of learner performance so that teachers can translate supervisory recommendations into improved classroom practice. Supervisory activities should remain developmental, fair, consistent, and responsive to teachers' actual needs, while division and school leaders should ensure that adequate time, resources, and technical assistance are available to support sustained professional learning.

References

- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute. <https://doi.org/10.54300/122.311>
- Department of Education. (2017, August 11). *National adoption and implementation of the Philippine Professional Standards for Teachers* (DepEd Order No. 42, s. 2017). https://www.deped.gov.ph/wp-content/uploads/2017/08/DO_s2017_042-1.pdf
- Department of Education. (2020a, May 4). *DepEd professional development priorities for teachers and school leaders for School Year 2020–2023* (DepEd Memorandum No. 50, s. 2020). https://www.deped.gov.ph/wp-content/uploads/2020/05/DM_s2020_050.pdf
- Department of Education. (2020b, September 7). *National adoption and implementation of the Philippine Professional Standards for School Heads* (DepEd Order No. 24, s. 2020). https://www.deped.gov.ph/wp-content/uploads/2020/09/DO_s2020_024-.pdf

- Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). *How principals affect students and schools: A systematic synthesis of two decades of research*. The Wallace Foundation. <https://wallacefoundation.org/report/how-principals-affect-students-and-schools-systematic-synthesis-two-decades-research>
- Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications.
- He, P., Guo, F., & Abazie, G. A. (2024). School principals' instructional leadership as a predictor of teacher's professional development. *Asian-Pacific Journal of Second and Foreign Language Education*, 9, Article 63. <https://doi.org/10.1186/s40862-024-00290-0>
- Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of Educational Research*, 88(4), 547–588. <https://doi.org/10.3102/0034654318759268>
- Liu, S., & Hallinger, P. (2018). Principal instructional leadership, teacher self-efficacy, and teacher professional learning in China: Testing a mediated-effects model. *Educational Administration Quarterly*, 54(4), 501–528. <https://doi.org/10.1177/0013161X18769048>
- Organisation for Economic Co-operation and Development. (2019). *TALIS 2018 results, Volume I: Teachers and school leaders as lifelong learners*. OECD Publishing. <https://doi.org/10.1787/1d0bc92a-en>
- Papay, J. P., Taylor, E. S., Tyler, J. H., & Laski, M. E. (2020). Learning job skills from colleagues at work: Evidence from a field experiment using teacher performance data. *American Economic Journal: Economic Policy*, 12(1), 359–388. <https://doi.org/10.1257/pol.20170709>
- Prudente, M. S., Garcia, J. A. S., Mistades, V. M., Roleda, L. S., & Talaue, F. T. (2024). *Systematic review of professional development programs for teachers in the Philippines* (Research Paper Series No. 003). Second Congressional Commission on Education, in partnership with De La Salle University. https://edcom2.gov.ph/media/2024/02/18_Prudente-et-al-Systematic-Review-of-Professional-1.pdf
- Ridge, B. L., & Lavigne, A. L. (2020). Improving instructional practice through peer observation and feedback: A review of the literature. *Education Policy Analysis Archives*, 28, Article 61. <https://doi.org/10.14507/epaa.28.5023>
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322–2347. <https://doi.org/10.1108/EJM-02-2019-0189>
- Sims, S., & Fletcher-Wood, H. (2021). Identifying the characteristics of effective teacher professional development: A critical review. *School Effectiveness and School Improvement*, 32(1), 47–63. <https://doi.org/10.1080/09243453.2020.1772841>
- Sims, S., Fletcher-Wood, H., O'Mara-Eves, A., Cottingham, S., Stansfield, C., Goodrich, J., Van Herwegen, J., & Anders, J. (2025). Effective teacher professional development: New theory and a meta-analytic test. *Review of Educational Research*, 95(2), 213–254. <https://doi.org/10.3102/00346543231217480>
- Veletić, J., & Olsen, R. V. (2021). Developing a shared cluster construct of instructional leadership in TALIS. *Studies in Educational Evaluation*, 68, Article 100942. <https://doi.org/10.1016/j.stueduc.2020.100942>
- 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>