P-ISSN: 3116-4730 E-ISSN 3116-4722
Nexus Journal of Multidisciplinary Research Volume 1: Issue 1 (January-March 2026)
DOI: https://doi.org/10.5281/zenodo.18946865

Original Article

Virtual Instructional Supervision and Teaching Performance: Inputs for Capacity Training Program

Domilyn P. Cuntapay

[1]University of Caloocan City, Graduate School, Philippines

*Correspondence: domilyn.cuntapay001@deped.gov.ph

How to cite this article:
Cuntapay, D. P. (2026). Virtual Instructional Supervision and Teaching Performance: Inputs for Capacity Training Program. Nexus Journal of Multidisciplinary Research, 1(1). https://doi.org/10.5281/zenodo.18946865

Abstract. *The rapid shift to online learning during the COVID-19 pandemic significantly transformed educational practices, including the supervision of instruction. This study examined the relationship between virtual instructional supervision and teachers' performance in public elementary schools in North District III, Caloocan City. Specifically, it explored teachers' and master teachers' perceptions of virtual instructional supervision, assessed teachers' classroom observation performance ratings, identified challenges encountered in implementing virtual supervision, and developed inputs for a capacity training program for teachers. The study employed an explanatory sequential mixed-methods design, combining quantitative and qualitative approaches. Data were collected from 63 respondents, composed of 42 teachers and 21 master teachers, using researcher-made questionnaires based on the Classroom Observation Tool (COT) indicators and follow-up interviews for deeper insights. Statistical tools such as frequency, percentage, weighted mean, t-test, and Pearson correlation were used to analyze the quantitative data. Findings revealed that while virtual instructional supervision was implemented among schools during distance learning, no significant relationship was found between the level of virtual instructional supervision and teachers' classroom observation performance ratings. Despite this, the study identified a need for enhanced professional support for teachers, particularly in developing video-based lessons and digital instructional materials suited for virtual learning environments. Based on the results, the study proposed a capacity training program aimed at strengthening teachers' competencies in technology-enhanced instruction and virtual teaching strategies. The findings highlight the importance of continuous professional development and effective supervisory practices to support teachers in adapting to evolving digital learning contexts.*

Keywords

Virtual instructional supervision; Teaching performance; Online learning supervision; Classroom observation tool (COT); Teacher professional development

INTRODUCTION

The COVID-19 pandemic has dramatically reshaped educational systems across the globe, compelling institutions to adopt alternative modalities to sustain teaching and learning processes. Traditional classroom instruction and supervision practices were disrupted as schools transitioned to remote and online learning environments. Consequently, educational leaders were challenged to redesign supervisory mechanisms that could support teachers while maintaining instructional quality in virtual settings. Within this context, virtual instructional supervision emerged as a viable strategy for monitoring, guiding, and improving teaching performance in digitally mediated learning environments.

P-ISSN: 3116-4730 E-ISSN 3116-4722
Nexus Journal of Multidisciplinary Research Volume 1: Issue 1 (January-March 2026)
DOI: https://doi.org/10.5281/zenodo.18946865

Instructional supervision has long been recognized as a crucial component of effective educational management. It serves as a systematic process aimed at improving teaching and learning through collaborative professional support, evaluation, and feedback. According to Oyewole and Ehinola (2014), instructional supervision involves cooperative activities and professional relationships designed to enhance classroom instruction and promote educational effectiveness. Similarly, Archibong (2013) describes supervision as a set of structured activities that facilitate continuous improvement in the teaching–learning process. Through such mechanisms, teachers are able to refine their pedagogical practices and maintain professional effectiveness in the classroom.

Supervision also plays a pivotal role in teacher professional development. Okendu (2012) emphasizes that instructional supervision provides guidance that enhances teachers' professional knowledge, skills, and instructional creativity. When conducted effectively, supervision fosters reflective practice and collaborative learning among educators, enabling teachers to learn from one another and continuously improve their instructional approaches (Harrison & Killion, 2017). Traditionally, this process involves classroom observations conducted by administrators, followed by feedback sessions designed to support teachers in improving instructional delivery (Glickman, Gordon, & Ross-Gordon, 2012).

However, the shift to remote learning environments during the pandemic disrupted conventional supervisory practices that relied heavily on physical classroom observation. Educational institutions were compelled to utilize digital technologies to support both instruction and supervision. Anderson (2014) notes that advances in communication technologies have enabled educational organizations to implement distance learning systems that do not require physical attendance in schools. These technologies have also created opportunities for instructional supervision to occur in virtual environments through video conferencing platforms, learning management systems, and other digital tools.

Virtual instructional supervision involves the use of communication technologies to observe teaching practices, provide feedback, and facilitate professional dialogue between supervisors and teachers. Through synchronous or asynchronous digital platforms, supervisors can observe recorded or live online classes, review teaching strategies, and conduct reflective conferences with teachers. Such practices allow supervisors and teachers to engage in collaborative reflection on instructional strengths and areas for improvement, thereby supporting continuous professional growth.

The growing adoption of online learning has also necessitated the development of new supervisory frameworks that align with digital instructional environments. Online supervision focuses on the observation and evaluation of teaching practices conducted in virtual classrooms, where teachers and students interact through technological platforms. Adam and Dickey (2021) emphasize that supervision in virtual environments remains fundamentally concerned with improving instruction and ensuring the quality of teaching and learning. In this context, supervisors must adapt their approaches to accommodate the dynamics of digital pedagogy, including the use of multimedia resources, virtual collaboration tools, and learning management systems.

Moreover, the effectiveness of instructional supervision is closely linked to teacher performance and student learning outcomes. Research suggests that constructive feedback, guidance, and professional support provided through supervision can enhance teacher motivation and instructional competence (Shantz & Ward, 2014; Rettig, 2013). Through continuous monitoring and feedback, teachers can improve their pedagogical practices, leading to better student engagement and learning achievement.

In the Philippine educational context, the Department of Education (DepEd) underscores the importance of instructional supervision in ensuring quality teaching. The adoption of the Philippine Professional Standards for Teachers (PPST) through DepEd Order No. 42, s. 2017 establishes a framework for evaluating and supporting teachers' professional growth. The PPST emphasizes continuous professional development, performance assessment, and the provision of technical assistance to teachers in order to enhance instructional quality and improve student learning outcomes.

Despite these policy frameworks, the rapid shift to online learning during the pandemic revealed significant gaps in supervisory practices. Traditional supervision models were not fully equipped to

address the challenges of monitoring instruction in virtual environments. As Watson and Ryan (2016) note, the rapid expansion of online learning has outpaced the development of policies and research related to instructional supervision in digital settings. This gap highlights the need for further investigation into how virtual instructional supervision influences teaching performance and professional development among teachers.

Given the critical role of supervision in maintaining instructional quality, it is essential to examine how virtual supervisory practices affect teacher performance in contemporary educational contexts. Understanding the relationship between virtual instructional supervision and teaching performance may provide valuable insights for educational leaders seeking to strengthen professional support systems for teachers. Such insights are particularly relevant in the post-pandemic educational landscape, where hybrid and technology-mediated instruction are likely to remain integral components of teaching and learning.

Therefore, this study investigates the impact of virtual instructional supervision on teachers' performance and explores how supervisory practices in digital environments can contribute to teacher professional development and improved instructional delivery. By examining the experiences of teachers and master teachers in public elementary schools, the study aims to generate evidence-based insights that may inform capacity-building programs and supervisory frameworks for educators operating in technology-enhanced learning environments.

Objectives of the Study

The study aimed to determine the effect of virtual instructional supervision on teachers' performance in public elementary schools in North District III, Caloocan City. Specifically, the study aimed to:

1. Determine the demographic profile of the respondents in terms of age, sex, civil status, educational attainment, length of service, and position item.
2. Assess the level of perceptions of teachers and master teachers on virtual instructional supervision in terms of content and pedagogy, learning environment and diversity of learners, and curriculum planning and assessment.
3. Determine whether there is a significant difference between the perceptions of teachers and master teachers regarding virtual instructional supervision.
4. Identify the average performance rating of teachers based on the Classroom Observation Tool.
5. Determine the level of virtual instructional supervision of master teachers as assessed by the teachers.
6. Examine whether there is a significant relationship between teachers' COT ratings and the level of virtual instructional supervision conducted by master teachers.
7. Identify the problems encountered by master teachers in the implementation of virtual instructional supervision.
8. Propose a capacity training program for teachers based on the findings of the study

METHODS

Study Design

This study utilized an explanatory sequential mixed-methods design, combining quantitative and qualitative approaches to examine the relationship between virtual instructional supervision and teachers' performance. The quantitative phase involved collecting survey data from teachers and master teachers, while the qualitative phase used follow-up interviews to explain and support the statistical findings. This design was appropriate because it allowed the researcher to first identify patterns and relationships in the data and then provide deeper insights into the results. The study was guided by the Input–Process–Output (IPO) framework, where the input included respondents' profiles, perceptions of virtual instructional supervision, teachers' performance ratings, and challenges encountered; the process involved the use of

questionnaires, interviews, and statistical analysis; and the output was the development of a proposed capacity training program for teachers.

Population

The study involved 63 respondents, composed of 42 teachers and 21 master teachers from seven public elementary schools in North District III, Caloocan City, namely A. Mabini Elementary School, Mhdel Pilar Elementary School, MLQ Elementary School, NHC Elementary School, Pag-Asa Elementary School, Pangarap Elementary School, and Tala Elementary School. A simple random sampling technique was employed to ensure that each member of the population had an equal chance of being selected, thereby minimizing bias and improving the representativeness of the sample. The teachers and master teachers were chosen as respondents because they were directly involved in the implementation and supervision of teaching and learning processes, particularly in the context of virtual instructional supervision.

Instrument

Data were collected using a researcher-made questionnaire developed based on the indicators of the Classroom Observation Tool (COT) used in evaluating teachers' performance. The instrument included sections that gathered the respondents' demographic profile, perceptions of virtual instructional supervision in terms of content and pedagogy, learning environment and diversity of learners, and curriculum planning and assessment, as well as the challenges encountered by master teachers in implementing virtual supervision. In addition, semi-structured interview questions were used to obtain qualitative insights that supported the quantitative results. The research instrument was validated by experts, including a master teacher, a school principal, and a graduate school professor, to ensure the reliability and clarity of the questionnaire.

Data Collection

Prior to data gathering, the researcher secured permission from the Schools Division Office of Caloocan City and coordinated with the school heads of the selected schools. After approval was granted, the researcher distributed the validated questionnaires to the respondents and explained the purpose of the study to ensure informed participation. Data were primarily collected through online questionnaires using Google Forms, with alternative communication methods prepared when necessary. After the survey responses were gathered, follow-up interviews and focus group discussions were conducted with selected respondents, particularly master teachers, to clarify and validate the quantitative findings. Ethical considerations, including voluntary participation and confidentiality of responses, were observed throughout the data collection process.

Data Analysis

The collected data were analyzed using appropriate descriptive and inferential statistical tools. Frequency and percentage distribution were used to describe the demographic profile of the respondents. The weighted mean was applied to determine the level of perceptions of teachers and master teachers regarding virtual instructional supervision and to analyze teachers' performance ratings based on the Classroom Observation Tool. The t-test for independent samples was used to determine whether there was a significant difference between the perceptions of teachers and master teachers, while the Pearson product–moment correlation coefficient (Pearson r) was utilized to examine the relationship between the level of virtual instructional supervision and teachers' performance ratings. These statistical methods enabled the researcher to interpret the data systematically and address the objectives of the study.

RESULTS AND DISCUSSIONS

1. Demographic Profile of the Respondents

The demographic profile of the respondents showed that most of the teachers were within the age bracket of 36–40 years old (28.57%), followed by those aged 26–30 (21.43%), while the majority of master

P-ISSN: 3116-4730 E-ISSN 3116-4722
Nexus Journal of Multidisciplinary Research Volume 1: Issue 1 (January-March 2026)
DOI: https://doi.org/10.5281/zenodo.18946865

teachers were 51 years old and above (42.86%), indicating that supervisory roles are commonly held by more experienced educators. In terms of sex, the teaching workforce was predominantly female, with 37 out of 42 teachers (88.10%) being female and 5 (11.90%) males, while all 21 master teachers were female. This finding reflects the common trend in the education sector where female educators dominate the teaching profession.

With respect to civil status, most teachers were single (59.52%), while 40.48% were married, whereas the majority of master teachers were married (76.19%), followed by widowed (14.29%) and single (9.52%). In terms of educational attainment, most teachers were baccalaureate degree holders (57.14%), followed by those with master's units (33.33%), while most master teachers had master's units (71.43%), followed by master's degree holders (23.81%), and 4.76% with doctoral units. These findings indicate that teachers are generally younger and still pursuing graduate studies, while master teachers tend to have higher educational qualifications and longer professional experience.

2. Level of Perceptions of Teachers and Master Teachers on Virtual Instructional Supervision

The findings revealed that both teachers and master teachers perceived virtual instructional supervision as highly beneficial in terms of content and pedagogy. Teachers obtained an overall weighted mean of 3.30, while master teachers obtained 3.43, both interpreted as Strongly Agree. This indicates that virtual instructional supervision assists teachers in applying content knowledge across curriculum areas, improving teaching strategies, and strengthening instructional practices that enhance learners' literacy, numeracy, and higher-order thinking skills. The result implies that virtual supervision remains an effective mechanism for guiding teachers even in remote or online learning environments, as it enables supervisors to provide feedback and professional support that enhances teachers' pedagogical competence and instructional delivery.

With regard to learning environment and diversity of learners, teachers rated the component Agree (WM = 2.97) while master teachers rated it Strongly Agree (WM = 3.52), indicating that supervisors perceive virtual instructional supervision to be highly supportive in addressing learners' diverse needs and promoting a conducive learning environment during online instruction. Meanwhile, for curriculum planning and assessment, teachers obtained a weighted mean of 3.24 while master teachers obtained 3.64, both interpreted as Strongly Agree. Statistical results further showed that while teachers and master teachers shared similar perceptions on content and pedagogy and learning environment and diversity of learners, a significant difference existed in curriculum planning and assessment, where master teachers provided higher ratings. This suggests that supervisors play a crucial role in assisting teachers in organizing curriculum content and selecting appropriate assessment strategies during virtual instruction. The findings imply that effective virtual instructional supervision strengthens instructional planning and assessment practices and contributes to improved teaching performance and student learning outcomes. These results support the view that instructional supervision promotes professional growth, collaborative reflection, and improved instructional practices among teachers (Harrison & Killion, 2017; Odiba, 2016).

3. Significant Difference Between the Perceptions of Teachers and Master Teachers Regarding Virtual Instructional Supervision

The test of significant difference between the perceptions of teachers and master teachers regarding virtual instructional supervision revealed that there was no significant difference in their overall perceptions. The computed t-value of -1.64 with a p-value of 0.11, which is greater than the 0.05 level of significance, led to the acceptance of the null hypothesis. This indicates that teachers and master teachers generally share similar views regarding the effectiveness and implementation of virtual instructional supervision, although master teachers tended to give slightly higher ratings. The finding implies that both groups recognize the value of supervision in improving instructional practices and supporting teachers in adapting to online or virtual learning environments.

Further analysis showed that no significant difference existed in the components of content and pedagogy (p = 0.50) and learning environment and diversity of learners (p = 0.06), indicating that both teachers and master teachers similarly perceived the role of virtual supervision in enhancing teaching strategies and managing diverse learning needs. However, a significant difference was found in curriculum planning and assessment (p = 0.04), where master teachers provided higher ratings than teachers. This suggests that supervisors may have a stronger appreciation of the importance of instructional planning and assessment practices since these areas are often part of their leadership and supervisory responsibilities. The result implies that while teachers and master teachers generally share common perceptions about virtual instructional supervision, master teachers may have greater involvement in guiding curriculum implementation and assessment practices. This supports the view that instructional supervision plays an important role in strengthening curriculum management and improving teaching effectiveness (Odiba, 2016; Harrison & Killion, 2017).

4. Level of Perceptions of Teachers and Master Teachers on Virtual Instructional Supervision

The results showed that the average performance rating of teachers based on the Classroom Observation Tool (COT) for two quarters was interpreted as very satisfactory, indicating that teachers demonstrated effective teaching practices during the period of virtual instruction. The findings suggest that teachers were able to maintain a satisfactory level of instructional performance despite the challenges of online teaching and the shift to virtual supervision. This implies that teachers had already developed competencies in planning lessons, managing instruction, and implementing teaching strategies aligned with the standards of the Classroom Observation Tool.

The result further implies that teachers were capable of adapting to virtual instructional supervision and continued to perform effectively in their professional responsibilities. Even with minimal direct supervision in some instances, teachers maintained satisfactory performance levels, which may be attributed to prior instructional supervision experiences and their commitment to improving teaching practices. This supports the view that instructional supervision encourages reflective practice and professional development among teachers, enabling them to continuously improve their instructional delivery and contribute to better learning outcomes (Beach & Reinhartz, 2015).

5. Level of Virtual Instructional Supervision of Master Teachers as Assessed by the Teachers.

The findings revealed that the level of virtual instructional supervision of master teachers as assessed by the teachers was rated at a high level, indicating that master teachers consistently performed their supervisory responsibilities during the implementation of online instruction. Teachers perceived that master teachers provided guidance, monitored instructional practices, and offered feedback to improve the delivery of lessons in virtual learning environments. This suggests that even in remote settings, supervision remained an essential mechanism for supporting teachers in implementing effective teaching strategies and maintaining instructional quality.

The results further imply that master teachers played an important role in strengthening teachers' instructional practices through continuous monitoring and professional support. Virtual instructional supervision allowed master teachers to review lesson plans, observe teaching practices, and provide suggestions that could help teachers improve their pedagogical approaches in online classrooms. This finding indicates that effective supervision does not necessarily require physical presence, as technological platforms can facilitate meaningful interaction between supervisors and teachers. Moreover, teachers' positive assessment of the supervisory practices suggests that virtual instructional supervision can still promote collaboration, professional reflection, and continuous improvement in teaching practices.

Furthermore, the result highlights the importance of strong supervisory leadership in ensuring the successful implementation of virtual learning. Master teachers' active engagement in supervising instruction may have helped teachers adapt to the challenges of remote teaching, such as the integration of digital tools and the management of learners in online settings. This implies that instructional

supervision, whether conducted face-to-face or virtually, remains a critical component of professional development and instructional improvement. The finding supports the view that supervision contributes to improving teaching practices and student learning outcomes by fostering collaboration, reflection, and professional growth among teachers (Harrison & Killion, 2017).

6. Significant Relationship Between Teachers' COT Ratings and the Level of Virtual Instructional Supervision Conducted by Master Teachers

The test of significant relationship between teachers' Classroom Observation Tool (COT) ratings and the level of virtual instructional supervision conducted by master teachers revealed that there was no statistically significant relationship between the two variables. The computed Pearson r-value of 0.22 indicates a low correlation, while the p-value of 0.16, which is greater than the 0.05 level of significance, led to the acceptance of the null hypothesis. This means that the level of virtual instructional supervision conducted by master teachers did not significantly influence the classroom observation performance ratings of teachers.

This result suggests that teachers' classroom performance may not solely depend on the extent of virtual supervision provided by master teachers. Teachers may have already developed instructional competencies and professional practices through prior supervision experiences and professional development activities. Consequently, even with varying levels of virtual supervision, teachers were able to maintain satisfactory teaching performance during classroom observations. This implies that teacher performance may also be influenced by factors such as teaching experience, personal motivation, instructional preparation, and prior exposure to supervision and mentoring in face-to-face settings.

Furthermore, the findings indicate that virtual instructional supervision may function more as a supportive and developmental process rather than a direct determinant of teachers' performance ratings. While supervision provides guidance, feedback, and professional assistance, teachers still exercise professional autonomy in planning lessons, managing instruction, and implementing teaching strategies. This reinforces the idea that instructional supervision contributes to teachers' reflective practice and professional growth rather than directly determining performance outcomes. As emphasized by Beach and Reinhartz (2015), teachers benefit from opportunities to reflect on their teaching practices and participate in professional learning experiences that foster instructional improvement and enhance student learning outcomes.

7. Problems Encountered by Master Teachers in the Implementation of Virtual Instructional Supervision

The findings revealed that the problems encountered by master teachers in the implementation of virtual instructional supervision were generally moderately encountered, with an overall weighted mean of 2.14. Among the identified challenges, poor internet connection (WM = 2.62) ranked first and was interpreted as highly encountered, followed by lack of time (WM = 2.48) and checking lesson plans (WM = 2.48), which were also rated as highly encountered. These results indicate that technological limitations and time constraints significantly affected the effective implementation of virtual instructional supervision during online learning.

Other challenges identified by master teachers included excessive workload (WM = 2.33), lack of available materials (WM = 2.24), and too many teachers to supervise (WM = 2.14), which were moderately encountered. In addition, lack of motivation (WM = 1.81), teachers' unpreparedness (WM = 1.81), difficulties in confrontation (WM = 1.76), and resistance of teachers to supervision (WM = 1.71) were also reported as moderately encountered problems. These findings suggest that aside from technological barriers, supervisory responsibilities and the increasing demands placed on master teachers also posed challenges in conducting effective virtual supervision.

The results imply that while virtual instructional supervision provides opportunities for monitoring and supporting teachers during remote instruction, several operational and technical barriers still hinder its effective implementation. Addressing issues such as internet connectivity, workload management, and the provision of adequate instructional materials may help improve the efficiency of virtual supervision.

Moreover, strengthening teachers' readiness and motivation to participate in supervisory processes may further enhance collaboration between teachers and supervisors. These findings highlight the need for institutional support and professional development programs that can help master teachers effectively perform their supervisory roles in technology-mediated learning environments.

8. Propose a capacity training program for teachers based on the findings of the study

A capacity training program for teachers was proposed to enhance teachers' competencies in delivering instruction in virtual learning environments. The results indicated that teachers perceived virtual instructional supervision as beneficial, yet they also expressed the need for additional support in improving instructional strategies and adapting to technology-mediated teaching. Thus, the proposed training program focuses on strengthening teachers' skills in developing video-based lessons, integrating digital tools, and implementing effective online teaching strategies to improve instructional delivery and student engagement.

The proposed program aims to equip teachers with the necessary knowledge and skills in planning, designing, and implementing effective virtual instruction. The training includes sessions on creating interactive video lessons, using appropriate online assessment tools, managing virtual classrooms, and applying innovative teaching strategies that address diverse learners' needs. By enhancing teachers' digital pedagogical skills, the training program is expected to improve their instructional competence and help them adapt more effectively to the demands of distance learning environments.

Furthermore, the proposed capacity training program emphasizes continuous professional development through collaborative learning, mentoring, and reflective teaching practices. Master teachers and school leaders may serve as facilitators who provide guidance, feedback, and coaching to teachers as they implement newly acquired instructional strategies. This initiative is expected to strengthen the culture of professional collaboration within schools and support teachers in improving their teaching performance, which ultimately contributes to better student learning outcomes and the effective implementation of virtual instructional supervision.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that both teachers and master teachers had positive perceptions of virtual instructional supervision, particularly in the areas of content and pedagogy and curriculum planning and assessment, indicating that supervision helped improve teaching strategies and instructional practices. Teachers' Classroom Observation Tool (COT) ratings were generally very satisfactory, suggesting that they were able to maintain effective teaching performance even in virtual learning environments. However, the study found no significant relationship between teachers' COT ratings and the level of virtual instructional supervision, implying that teachers' performance may also be influenced by factors such as professional experience, prior supervision, and personal commitment to teaching improvement.

It is recommended that school administrators and master teachers strengthen virtual instructional supervision by providing continuous guidance, mentoring, and feedback to teachers. Schools should also provide professional development programs and capacity training, particularly in developing video lessons and using digital instructional tools to enhance teaching effectiveness in online learning environments. Furthermore, improving technological resources and internet connectivity is necessary to address the challenges encountered in implementing virtual instructional supervision.

Funding
This research received no external funding

Ethical Approval
Informed consent was obtained from all subjects involved in the study.

Competing interest

The author declares no conflicts of interest.

Data Availability

Data will be made available by the corresponding author on request.

Declaration of Artificial Intelligence Use

In this work, the author utilized artificial intelligence (AI) tools and methodologies, CHATGPT to improve readability and grammar. After using this tool/service, the author evaluated and revised the content as necessary and take full responsibility for the published content.

REFERENCES

Adam, K., & Dickey, L. (2021). Supervision in virtual learning environments: Challenges and strategies for instructional leaders. Journal of Educational Technology Systems, 49(4), 567–583. https://doi.org/10.1177/00472395211003855

Anderson, T. (2014). The theory and practice of online learning (2nd ed.). Athabasca University Press. https://www.aupress.ca/books/120146-the-theory-and-practice-of-online-learning/

Archibong, I. A. (2013). Strengthening instructional supervision for improved teaching and learning in schools. International Journal of Educational Administration and Policy Studies, 5(4), 56–62.https://academicjournals.org/journal/IJEAPS/article-full-text/3B2D5E738513

Beach, D. M., & Reinhartz, J. (2015). Supervisory leadership: Focus on instruction (2nd ed.). Routledge. https://doi.org/10.4324/9781315856655

Department of Education. (2017). DepEd Order No. 42, s. 2017: National adoption and implementation of the Philippine Professional Standards for Teachers (PPST). Department of Education, Philippines. https://www.deped.gov.ph/2017/08/11/do-42-s-2017-national-adoption-and-implementation-of-the-philippine-professional-standards-for-teachers/

Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2012). Supervision and instructional leadership: A developmental approach (9th ed.). Pearson. https://www.pearson.com/en-us/subject-catalog/p/supervision-and-instructional-leadership/P200000002572

Harrison, C., & Killion, J. (2007). Ten roles for teacher leaders. Educational Leadership, 65(1), 74–77. https://www.ascd.org/el/articles/ten-roles-for-teacher-leaders

Okendu, J. N. (2012). The influence of instructional supervision on teachers' professional development. Journal of Education and Practice, 3(12), 45–51. https://www.iiste.org/Journals/index.php/JEP/article/view/3086

Odiba, I. A. (2016). Instructional supervision and teachers' effectiveness in secondary schools. International Journal of Educational Administration and Policy Studies, 8(2), 18–24. https://doi.org/10.5897/IJEAPS2015.0399

Oyewole, B. K., & Ehinola, G. B. (2014). Instructional supervision as a tool for improving teaching and learning in secondary schools. Journal of Education and Practice, 5(33), 111–115. https://www.iiste.org/Journals/index.php/JEP/article/view/17133

Rettig, P. (2013). Improving teaching through instructional supervision and feedback. Educational Leadership Review, 14(2), 35–44. https://files.eric.ed.gov/fulltext/EJ1070434.pdf

Shantz, A., & Ward, V. (2014). Employee engagement and teacher motivation in educational settings. Educational Management Administration & Leadership, 42(4), 564–581. https://doi.org/10.1177/1741143214523019

Watson, W. R., & Ryan, T. (2016). The expanding role of online learning in education. Journal of Educational Technology Development and Exchange, 9(1), 45–58. https://doi.org/10.18785/jetde.0901.04