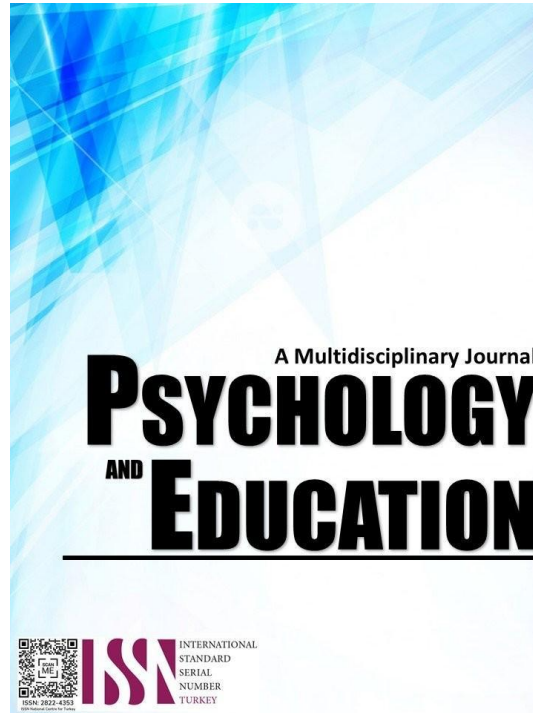


INFLUENCE OF COLLABORATIVE SUPERVISION AND MANAGERIAL CONCEPTUAL SKILLS ON THE TEACHING EFFECTIVENESS OF TEACHERS



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Influence of Collaborative Supervision and Managerial Conceptual Skills on the Teaching Effectiveness of Teachers

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Abstract

Teaching effectiveness remains a concern in public education, particularly in areas where instructional leadership and managerial competencies differ significantly among school heads. Challenges such as inconsistent supervision practices and limited strategic planning have prompted a closer examination of leadership roles in shaping teacher performance. This study investigated the influence of collaborative supervision and managerial conceptual skills of school heads on the teaching effectiveness of public elementary school teachers in a public school district in a province in the southern Philippines. Grounded in Collaborative Supervision Theory and Managerial Conceptual Skills Theory, the research was driven by challenges in instructional leadership and teacher performance. Using a descriptive-correlational design, data were collected from 71 teachers and 120 Grade 6 learners through adapted survey questionnaires. Results revealed that school heads demonstrated very high levels of managerial conceptual skills, with mean scores of 3.86 for strategic planning, 3.84 for change management, and 3.18 for problem-solving. Collaborative supervision was rated high overall with a mean of 3.32, with non-directive supervision scoring very high with a mean of 3.79, and directive supervision rated high with a mean of 2.84. Teachers were perceived to be highly effective, particularly in classroom management with a mean of 3.65, followed by student engagement with a mean of 3.32 and instructional strategies with a mean of 3.20. Correlation analysis revealed no significant relationship between collaborative supervision and teaching effectiveness, as indicated by an r -value of -0.015 and a p -value of 0.902 . Similarly, managerial conceptual skills had an r -value of 0.237 and a p -value of 0.046 , which does not meet the threshold for statistical significance; hence, the researcher failed to reject the null hypothesis for both variables. Further, regression analysis showed that none of the indicators of managerial conceptual skills were statistically significant predictors of teaching effectiveness. These findings suggest that although managerial conceptual skills and collaborative supervision may be theoretically relevant to educational leadership, their direct impact on teaching effectiveness is not statistically supported in the context of this study.

Keywords: *collaborative supervision, managerial conceptual skills, teaching effectiveness, instructional leadership, descriptive-correlational research design*

Introduction

Teaching effectiveness is critical in ensuring quality education, yet it remains a challenge due to variations in instructional supervision and managerial skills of school heads. Collaborative supervision in education fosters teacher development through cooperative approaches between supervisors and teachers (Lim, 2024). The inconsistencies in collaborative supervision and managerial skills can lead to a lack of clear direction, making it difficult for teachers to align their instructional strategies with school goals (Wiyono et al., 2021).

In Cambodia, irregular collaborative supervision and managerial skills within performance appraisal practices can lead to a lack of clear guidance for teachers, affecting the alignment of their instructional methods with set performance targets (Chhy & Kawai, 2024). In Thailand, discrepancies in collaborative supervision and managerial skills impacted the effectiveness of performance appraisal, resulting in unclear objectives that confused teachers and weakened their instructional competence (Korir, 2022).

In the Candelaria West District in the Philippines, inconsistencies in collaborative supervision and managerial skills have led to a lack of clear direction, as evidenced by the varying degrees to which managerial conceptual skills influence teaching effectiveness. The findings highlight that while project implementation and task management have moderate correlations with teaching effectiveness, weak ICT skills and strategy correlations suggest that poor supervision may affect effective teaching methods. The lowest correlation between strategic planning and research indicates that inadequate managerial skills may result in ineffective classroom planning, ultimately affecting student learning outcomes (Silva, 2021).

In one of the schools in the Davao de Oro division where the researcher works, there is a problem in collaborative supervision, and managerial skills among school heads have been observed. Teachers express concerns with collaborative supervision and managerial skills, which affect inconsistent guidance, limited professional development, and ineffective feedback mechanisms. These also lead to different teaching effectiveness problems, affecting classroom management, instructional strategies, and student engagement. Understanding how these factors shape teachers' effectiveness will provide insights that will inform policy and leadership strategies to strengthen teacher performance and improve student learning outcomes; thus, this study is needed.

This study is grounded in Collaborative Supervision Theory (Glickman, 1990) and Managerial Conceptual Skills Theory (Katz, 1955),

which explain how school leadership practices influence teacher effectiveness. These theories emphasized the role of school heads in fostering collaboration, problem-solving, and strategic planning to enhance teaching performance and student engagement.

In addition, Collaborative Supervision Theory highlighted the importance of directive and non-directive supervision in guiding teachers toward professional growth. Directive supervision involves providing structured feedback and expectations, while non-directive supervision allows teachers greater autonomy, with school heads acting as facilitators. Through collaborative supervision, school leaders created a supportive environment where teachers continuously improved their instructional strategies, classroom management, and student engagement.

Research Questions

This study aimed to determine the influence of school heads' collaborative supervision and managerial conceptual skills on teachers' effectiveness. Specifically, this research sought to answer the following questions:

1. What was the level of school heads' collaborative supervision in terms of:
 - 1.1. directive; and
 - 1.2. non-directive?
2. What was the level of school heads' managerial conceptual skills, in terms of:
 - 2.1. change management;
 - 2.2. problem solving; and
 - 2.3. strategic planning?
3. What was the level of teaching effectiveness in terms of:
 - 3.1. classroom management;
 - 3.2. instructional strategies
 - 3.3. student engagement?
4. Was there a significant relationship between school heads' collaborative supervision and teaching effectiveness?
5. Was there a significant relationship between school heads' managerial conceptual skills and teaching effectiveness?
6. Which indicator of collaborative supervision predicted teaching effectiveness?
7. Which indicator of managerial conceptual skills predicted teaching effectiveness?

Methodology

Research Design

This study employed a descriptive-correlational research design, which is appropriate for examining relationships among naturally occurring variables without manipulating them. According to Creswell (2014), descriptive-correlational designs are effective in identifying patterns and associations between variables in educational settings, especially when experimental control is not feasible. This design allowed the researcher to explore the extent to which collaborative supervision and managerial conceptual skills of school heads are associated with the teaching effectiveness of elementary school teachers.

The descriptive aspect of the design facilitated the systematic collection and presentation of data on the levels of collaborative supervision, managerial conceptual skills, and teaching effectiveness. Meanwhile, the correlational component enabled the researcher to analyze the relationships among these variables statistically. As supported by Paniamogan and Dioso (2024), correlational studies are instrumental in educational research for understanding how leadership practices influence teacher performance.

This design was deemed suitable for the objectives of this study, as it provided a comprehensive framework for assessing how directive and non-directive supervision, along with strategic planning, problem-solving, and change management, relate to classroom management, instructional strategies, and student engagement.

Respondents

The study was conducted among 10 public schools of Monkayo District, Davao de Oro Division. A universal sampling technique was used to select all 71 elementary teachers handling Grade 6 classes from the target schools. In addition, a proportionate stratified random sampling technique was employed to select 120 Grade 6 student respondents from a total population of 368 learners. This dual sampling approach ensured comprehensive representation of both teaching and learning perspectives, enabling a detailed assessment of the influence of school heads' collaborative supervision and managerial conceptual skills on teacher effectiveness as perceived by both educators and learners.

The sample size of 120 Grade 6 learners was determined using the Raosoft sample size calculator, which is widely used in educational research to ensure statistical reliability. Given a total population of 368 learners, the calculator recommended a sample size of 120 to achieve a 95% confidence level with a 5% margin of error. This sample size ensures that the findings are representative of the population and allows for meaningful statistical analysis.

To ensure proportional representation of learners across different schools, a proportionate stratified sampling method was implemented.

Each stratum was allocated a sample size based on its share of the total Grade 6 population. The table below presents the population size and corresponding sample size for each stratum, facilitating accurate representation and enhancing the precision of the sampling process.

Table 1. *Distribution of Respondents*

Name of Schools	Grades 4-6 Teachers	Learners		
		Grade 6	Total	Sample
School A	6	45	45	15
School B	4	9	9	3
School C	4	6	6	2
School D	3	14	14	5
School E	4	5	5	2
School F	4	12	12	4
School G	30	217	217	71
School H	5	12	12	4
School I	5	25	25	8
School J	6	23	23	6
Total	71	368	368	120

Instrument

The researcher used an adapted survey questionnaire to determine the influence of collaborative supervision and managerial conceptual skills on teachers' effectiveness. Comprehensive data collection was ensured through preparing three sets of survey questionnaires for each variable: teachers' effectiveness, collaborative supervision, and managerial conceptual skills. The constructs for teachers' effectiveness were adapted from Seneviratne et al. (2019), collaborative supervision from Hoque et al. (2020), and managerial conceptual skills from Silva (2021). The survey employed a four-point Likert Scale, where 4 indicates the highest level of agreement and 1 the lowest.

Procedure

After constructing the survey instrument, the instrument's validity was rechecked by seeking approval from the research adviser. The adviser then reviewed the survey and had it validated by experts in academic research to ensure content relevance, clarity, and appropriateness. The survey underwent further review by the institution's Review and Ethics Committee to ensure adherence to ethical research standards and the protection of participants. The panel and the Review and Ethics Committee granted the approval. The researcher then conducted a pilot test among 15 Grade 6 teacher participants and 20 learner respondents from Montevista District. The results of the pilot testing revealed a perfect correlation with an r -value of 1.00 and $p < .001$ within collaborative supervision, managerial conceptual skills, and teaching effectiveness. These values indicate a high level of internal consistency, confirming that the instruments are valid and reliable for use in this study.

The researcher obtained approval from the institution's ethical review committee to ensure that ethical guidelines regarding participant consent and data confidentiality were strictly followed. Following this, the researcher sought approval from the research adviser and panelists to ensure that the study design, objectives, and methodology aligned with academic standards. Internal approval was secured, and the researcher was also granted a letter of authorization to conduct the study by the Office of the Division of Davao de Oro within the selected public schools. The respondents answered the survey on collaborative supervision, managerial conceptual skills, and teachers' effectiveness, and the researcher collected the data. The researcher interpreted the results, analyzed the quantitative findings from the statistician, and examined the relationship between supervision, managerial skills, and teachers' effectiveness, drawing conclusions based on the study's objectives.

Data Analysis

To analyze the quantitative data for this study, the researcher used the following statistical tools to examine the relationships between collaborative supervision, managerial conceptual skills, and teachers' effectiveness. Mean was used to determine the average level of respondents' perceptions regarding collaborative supervision, managerial conceptual skills, and teachers' effectiveness. Multiple Linear Regression Analysis was also used to examine the predictive relationships between the variables. Specifically, it will identify which indicators of collaborative supervision and managerial conceptual skills significantly influence teachers' effectiveness.

Ethical Considerations

The study carefully followed all the ethical principles, such as voluntary participation, informed consent, confidentiality, and safety of the participants. Both teacher and student respondents were fully informed of their rights and were allowed to withdraw from the study at any time without penalty. For student participants, parental consent and student assent were obtained to ensure ethical compliance. Data privacy was strictly maintained in accordance with the Data Privacy Act of 2012, which ensured that all personal details and responses were kept confidential and used primarily for research purposes. The researcher ensured transparency and accountability throughout the study, guided by institutional protocols and ethical standards, including approval from the Review and Ethics Committee.

and the Division Office of Davao de Oro.

Results and Discussion

Table 1. *Level of Collaborative Supervision*

<i>Indicators</i>	<i>Mean</i>	<i>Interpretation</i>
Directive	2.84	High
Non-Directive	3.79	Very High
Overall	3.32	High

Table 1 shows the level of all indicators of collaborative supervision with an overall mean of 3.32, interpreted as high. The highest mean of 3.79, interpreted as very high, was recorded for the indicator, non-directive. Meanwhile, the lowest mean of 2.84, interpreted as high, was observed in the indicator of directive. This indicates that collaborative supervision is found to be more effective when non-directive approaches are employed compared to directive ones.

This result supported the findings of Shah (2023), who emphasized that non-directive supervision enhances teacher self-efficacy by fostering autonomous and reflective practices. These practices empower teachers to identify their strengths and areas for improvement, which in turn contribute to more effective classroom management and improved student outcomes. Similarly, Ziani and Aoumeur (2022) found that non-directive supervision promotes teacher autonomy through self-reflection and self-evaluation rather than top-down directives. This autonomy cultivates a deeper sense of professional commitment and ownership of instructional growth, ultimately leading to enhanced teaching effectiveness.

Table 2. *Level of Managerial Conceptual Skills*

<i>Indicators</i>	<i>Mean</i>	<i>Interpretation</i>
Strategic Planning	3.86	Very High
Problem Solving	3.18	High
Change Management	3.84	Very High
Overall	3.67	Very High

Presented in table 2 is the level of all indicators of managerial conceptual skills among school heads with an overall mean of 3.67, interpreted as very high. The highest mean of 3.86, interpreted as very high, was recorded for the indicator, strategic planning. Meanwhile, the lowest mean of 3.18, interpreted as high, was observed in the indicator of problem solving. This indicates that school heads are perceived to possess strong managerial conceptual skills, particularly in strategic planning and change management.

These results suggest that school heads are perceived to possess strong managerial conceptual skills, particularly in strategic planning and change management. This finding is supported by Ukozor and Edet (2024), who emphasized that school leaders with high conceptual skills are better equipped to make informed decisions, develop strategic plans, and implement effective solutions that align with institutional goals. Similarly, Gamala and Marpa (2022) found that school heads in the Philippines demonstrate strong capabilities in planning and strategic analysis, which are essential for managing resources and navigating complex educational environments. These studies affirm the critical role of managerial conceptual skills in enhancing school leadership and supporting teacher effectiveness.

Table 3. *Level of Teacher's Effectiveness*

<i>Indicators</i>	<i>Mean</i>	<i>Interpretation</i>
Student Engagement	3.32	High
Classroom Management	3.65	Very High
Instructional Strategies	3.20	High
Overall	3.39	High

Presented in Table 3 is the level of all the indicators of teachers' effectiveness with an overall mean of 3.39, interpreted as high. The highest mean of 3.65, interpreted as very high, was recorded for the indicator, classroom management. Meanwhile, the lowest mean of 3.20, interpreted as high, was observed in the indicator of instructional strategies. These findings highlighted that teachers are perceived to be effective in managing classrooms while maintaining a high level of performance in student engagement and instructional strategies.

The findings of this study supported the idea of Ahmad et al. (2024), who emphasized that effective teachers consistently demonstrate strong classroom management techniques, clear instructional practices, and strategies that foster student participation, all of which contribute to improved academic performance. Additionally, Tomaszewski et al. (2022) found that student engagement plays a mediating role between teaching practices and academic achievement, suggesting that teachers who promote active participation and positive behavior significantly enhance learning outcomes. These studies affirm the importance of classroom management and student



engagement as core components of teaching effectiveness.

Table 4. Relationship of Collaborative Supervision and Teaching Effectiveness

Variables	Pearson Correlation (r)	p-value	Interpretation	Decision
Collaborative Supervision Teacher Effectiveness	-0.015	0.902	No Correlation	Failed to Reject the Null Hypothesis

Table 4 summarizes the significant relationship between collaborative supervision and teaching effectiveness. The findings show a Pearson correlation coefficient of -0.015 with a p-value of 0.902, interpreted as no correlation; hence, the researcher failed to reject the null hypothesis, which indicates that collaborative supervision does not have a significant relationship with teacher effectiveness in this context.

Table 5. Relationship of Managerial Conceptual Skills and Teaching Effectiveness

Variables	Pearson Correlation (r)	p-value	Decision
School Heads Managerial Conceptual Skills Teacher Effectiveness	0.237	0.046	Reject the Null Hypothesis

Presented in table 5 is the relationship between school heads' managerial conceptual skills and teacher effectiveness, with a Pearson correlation coefficient (r) of 0.237 and a p-value of 0.046. The p-value does not meet the conventional threshold for statistical significance ($p < 0.05$); hence, the researcher failed to reject the null hypothesis. This means that managerial conceptual skills of school heads do not significantly influence teacher effectiveness.

Table 6. Regression Model between Managerial Conceptual Skills and Teaching Effectiveness

Model	Unstandardized	Standard Error	Standardized	t-value	p-value
1 (Intercept)	2.140	0.688		3.111	0.003
Strategic Planning	0.119	0.201	0.077	0.594	0.555
Problem Solving	0.066	0.115	0.073	0.571	0.570
Change Management	0.168	0.135	0.162	1.244	0.218

Table 6 presents the regression analysis results examining the predictive power of strategic planning, problem-solving, and change management on teaching effectiveness. The findings show that none of the indicators reached statistical significance, as all p-values exceeded the conventional threshold of 0.05. Specifically, strategic planning with a p-value of 0.555, problem-solving with a p-value of 0.570, and change management with a p-value of 0.218 did not significantly predict teaching effectiveness.

Although change management had the highest standardized coefficient with a β of 0.16 and t-value of 1.244, its p-value still indicates no significant predictive influence. These results suggest that while managerial conceptual skills may be important in theory, their direct impact on teaching effectiveness in this context is not statistically supported. Other factors not included in the model may play a more substantial role in influencing teacher performance.

Conclusions

The findings of this study provide valuable insights into the relationship between school heads' managerial conceptual skills and teacher effectiveness. While collaborative supervision did not show a significant correlation with teaching effectiveness, managerial conceptual skills demonstrated a low but meaningful positive relationship, with change management emerging as the most influential predictor. This underscores the importance of school heads' ability to guide teachers through transitions, respond to evolving educational demands, and implement strategic improvements. In contrast, strategic planning and problem-solving, though essential, did not exhibit strong predictive power, suggesting their influence may be indirect or context-dependent. Given these findings, it is recommended that school heads enhance their managerial conceptual skills through targeted professional development programs focusing on adaptive leadership and change management. Teachers should also engage in reflective practices and feedback-driven initiatives to foster continuous growth. Furthermore, the Department of Education may consider revisiting collaborative supervision frameworks to ensure they are contextually relevant and supported by institutional structures. Future research may explore additional variables such as leadership style, school climate, and teacher resilience to deepen understanding of the factors that shape teaching effectiveness and inform more responsive educational leadership strategies.

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