Administrative Challenges and Teacher Support Mechanisms in Public Schools: A Quantitative Survey Analysis of Policy Implementation Effectiveness in Khon Kaen Province, Thailand [1]

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Abstract:

Background: Thailand's education system faces significant administrative challenges that impede effective policy implementation and teacher support. Despite numerous educational reforms, the gap between policy intentions and classroom realities persists, particularly affecting teacher performance and student outcomes in provincial areas.

Purpose: This study examines the relationship between administrative challenges, policy implementation effectiveness, and teacher support mechanisms in public schools within Khon Kaen Province, Thailand, utilizing a comprehensive quantitative survey approach.

Methods: A cross-sectional survey design was employed with 384 participants (192 teachers and 192 administrators) from 96 public schools in Khon Kaen Province. Data were collected using validated instruments measuring administrative challenges (Cronbach's α = 0.89), policy implementation effectiveness (Cronbach's α = 0.92), and teacher support mechanisms (Cronbach's α = 0.91). Statistical analyses included descriptive statistics, correlation analysis, multiple regression, and structural equation modeling using SPSS 29.0 and AMOS 28.0.

Results: Significant correlations were found between administrative challenges and policy implementation effectiveness (r = -0.67, $p < 0.001$), and between teacher support mechanisms and policy implementation effectiveness (r = 0.72, $p < 0.001$). Multiple regression analysis revealed that teacher support mechanisms (β = 0.58, $p < 0.001$) and administrative capacity (β = 0.34, $p < 0.001$) significantly predicted policy implementation effectiveness (R^2 = 0.69). Structural equation modeling confirmed the mediating role of teacher support in the relationship between administrative challenges and policy outcomes (CFI = 0.95, RMSEA = 0.06).

Conclusions: Administrative challenges significantly impede policy implementation effectiveness, while robust teacher support mechanisms serve as critical mediators for successful educational reform. The study provides evidence-based recommendations for enhancing administrative frameworks and teacher support systems in Thai provincial education contexts.

Keywords: administrative challenges, policy implementation, teacher support, educational management, Thailand, quantitative analysis

1. INTRODUCTION

Educational policy implementation in developing countries faces multifaceted challenges that significantly impact teaching quality and student outcomes (Chen et al., 2023). In Thailand, the disparity between policy formulation at the national level and implementation at the local school level has become a persistent concern for educational stakeholders (Sirisuthi & Aksornsua, 2023). The Thai education system, governed by the Ministry of Education, has undergone numerous reforms aimed at improving educational quality and accessibility, yet significant implementation gaps remain, particularly in provincial areas where resource constraints and administrative capacity limitations are most pronounced.

Khon Kaen Province, located in northeastern Thailand, represents a critical case study for understanding these implementation challenges. As one of the largest provinces in the region, Khon Kaen encompasses both urban and rural educational contexts, providing a representative sample of the administrative and pedagogical challenges faced by Thai schools (Tantranont & Sawatdeenarunat, 2023). The province's 847 public schools serve approximately 312,000 students, making it an ideal location for examining the relationship between administrative effectiveness and educational outcomes.

Recent research has highlighted several key areas of concern in Thai educational administration, including inadequate resource allocation, insufficient professional development opportunities for teachers, and poor communication between policy makers and implementers (Kerdtip & Sa-au, 2024). These challenges are compounded by cultural and systemic factors that influence how educational policies are interpreted and implemented at the local level. Understanding these dynamics is crucial for developing effective strategies to bridge the gap between policy intentions and classroom realities.

The significance of this study lies in its comprehensive quantitative approach to examining administrative challenges and teacher support mechanisms within a specific geographical context. Previous research in this area has primarily relied on qualitative methodologies or focused on national-level analysis, leaving a gap in understanding the specific quantitative relationships between administrative factors and policy implementation effectiveness in provincial settings (Nsengimana et al., 2024). This study addresses this gap by providing empirical evidence of these relationships through a large-scale survey of teachers and administrators in Khon Kaen Province.

2. LITERATURE REVIEW

2.1 Administrative Challenges in Educational Settings

Administrative challenges in educational institutions have been extensively documented in international literature, with particular emphasis on developing countries facing rapid educational reform (Mahmoud et al., 2023). These challenges typically encompass resource allocation inefficiencies, inadequate infrastructure, limited technological integration, and insufficient administrative capacity building. In the Thai context, research has identified several specific administrative obstacles that impede effective school management and policy implementation.

Resource allocation disparities represent one of the most significant administrative challenges in Thai education. Studies by Glatthorn et al. (2022) demonstrated that funding inequities between urban and rural schools create substantial barriers to educational quality improvement. This disparity is particularly pronounced in northeastern provinces like Khon Kaen, where schools often struggle with inadequate facilities, limited teaching materials, and insufficient staffing levels. The impact of these resource constraints extends beyond immediate operational concerns to affect long-term educational planning and strategic development.

Communication barriers within educational hierarchies constitute another critical administrative challenge. Research conducted by Pengchan (2023) revealed that poor communication between different levels of educational administration often results in policy misinterpretation and implementation delays. These communication gaps are exacerbated by hierarchical organizational structures that limit feedback mechanisms and reduce the ability of frontline educators to influence policy development. The consequences of these communication failures are particularly evident in rural contexts where geographical isolation compounds existing organizational barriers.

Administrative capacity building represents a fundamental challenge for Thai educational institutions. Studies by Phumphongkhochasorn (2022) indicated that many school administrators lack the necessary skills and training to effectively implement complex educational reforms. This capacity deficit is particularly problematic given the increasing complexity of educational policies and the growing emphasis on data-driven decision making in educational management. The lack of systematic professional development programs for administrators further compounds these capacity limitations.

2.2 Policy Implementation Effectiveness in Education

Policy implementation effectiveness in educational contexts has been the subject of extensive scholarly inquiry, with researchers examining various factors that influence the successful translation of policy intentions into practice (OECD, 2023). The implementation process involves multiple stakeholders, including policymakers, administrators, teachers, and community members, each bringing different perspectives and constraints to the implementation process. Understanding these dynamics is crucial for developing effective implementation strategies.

The concept of implementation fidelity has emerged as a key factor in determining policy effectiveness. Research by Syafruddin et al. (2024) demonstrated that successful policy implementation requires not only adherence to policy guidelines but also adaptation to local contexts and needs. This balance between fidelity and adaptation is particularly challenging in diverse educational systems like Thailand, where schools operate in vastly different socioeconomic and cultural contexts. The ability to maintain policy coherence while allowing for local adaptation represents a critical challenge for educational administrators.

Stakeholder engagement and buy-in have been identified as crucial determinants of implementation success. Studies conducted by Chantri Polprasert and Anutariya (2024) revealed that policies developed without meaningful input from teachers and school administrators are significantly more likely to fail during implementation. This finding highlights the importance of participatory policy development processes and the need for ongoing stakeholder engagement throughout the implementation phase. The challenge lies in creating mechanisms that allow for meaningful participation while maintaining policy coherence and direction.

Organizational readiness for change represents another critical factor influencing implementation effectiveness. Research by Wang (2024) indicated that schools with strong leadership, clear communication channels, and robust support systems are significantly more likely to successfully implement new policies. This finding underscores the importance of building organizational capacity as a prerequisite for effective policy implementation. The development of such capacity requires sustained investment in leadership development, communication systems, and support infrastructure.

2.3 Teacher Support Mechanisms and Educational Outcomes

Teacher support mechanisms play a crucial role in determining educational quality and student outcomes, serving as mediating factors between administrative policies and classroom practice (Ketchumpol, 2023). These mechanisms encompass various forms of professional, emotional, and material support that enable teachers to effectively fulfill their roles. Understanding the relationship between support mechanisms and teacher effectiveness is essential for developing comprehensive educational improvement strategies.

Professional development opportunities represent one of the most critical forms of teacher support. Research by Charoenporn (2023) demonstrated that teachers who receive regular, high-quality professional development are significantly more likely to implement innovative teaching practices and achieve better student outcomes. However, studies have also revealed significant disparities in professional development access, with rural and under-resourced schools often receiving inadequate support. This disparity contributes to the perpetuation of educational inequalities and limits the overall effectiveness of educational reform efforts.

Mentorship programs and peer support networks have been identified as particularly effective forms of teacher support. Studies conducted by Chan (2023) revealed that structured mentorship programs can significantly improve teacher retention rates and job satisfaction. These programs are particularly valuable for beginning teachers who often struggle with the

transition from teacher preparation programs to classroom practice. The effectiveness of mentorship programs depends on careful matching of mentors and mentees, adequate training for mentors, and ongoing support from school administration.

Access to teaching resources and materials represents a fundamental form of teacher support that directly impacts instructional quality. Research by Sakdadach et al. (2023) indicated that teachers with adequate access to current textbooks, technology, and supplementary materials are significantly more likely to engage students and achieve learning objectives. However, resource access varies dramatically across schools, with rural and under-funded institutions often struggling to provide basic materials. This resource gap contributes to educational inequalities and limits the potential for comprehensive educational improvement.

2.4 Theoretical Framework

This study is grounded in the Systems Theory of Educational Administration, which conceptualizes schools as complex systems with interconnected components that influence overall organizational effectiveness (Uttayotha & Scheef, 2021). According to this framework, administrative challenges, policy implementation processes, and teacher support mechanisms represent interrelated system components that collectively determine educational outcomes. The theory emphasizes the importance of understanding these relationships holistically rather than examining individual components in isolation.

The study also draws upon Implementation Theory, which provides a framework for understanding the factors that influence the successful translation of policies into practice. This theory emphasizes the importance of implementation context, stakeholder capacity, and organizational readiness in determining policy success (Shimizu & Vithal, 2023). The theory suggests that effective implementation requires alignment between policy goals, organizational capacity, and environmental constraints. This alignment is particularly challenging in diverse educational systems where schools operate under varying conditions and constraints.

3. RESEARCH QUESTIONS

Based on the literature review and theoretical framework, this study addresses the following research questions:

RQ1: What is the current state of administrative challenges, policy implementation effectiveness, and teacher support mechanisms in public schools in Khon Kaen Province?

RQ2: What are the relationships between administrative challenges, policy implementation effectiveness, and teacher support mechanisms in these schools?

RQ3: To what extent do teacher support mechanisms mediate the relationship between administrative challenges and policy implementation effectiveness?

RQ4: What factors significantly predict policy implementation effectiveness in Khon Kaen public schools?

4. OBJECTIVES

The primary objectives of this study are to:

4.1 Assess the levels of administrative challenges, policy implementation effectiveness, and teacher support mechanisms in public schools across Khon Kaen Province.

4.2 Examine the correlational relationships between administrative challenges, policy implementation effectiveness, and teacher support mechanisms.

4.3 Determine the mediating role of teacher support mechanisms in the relationship between administrative challenges and policy implementation effectiveness.

4.4 Identify significant predictors of policy implementation effectiveness and develop a comprehensive model explaining these relationships.

4.5 Provide evidence-based recommendations for improving administrative effectiveness and teacher support in Thai provincial education contexts.

5. METHODOLOGY

5.1 Research Design

This study employed a cross-sectional survey design to examine the relationships between administrative challenges, policy implementation effectiveness, and teacher support mechanisms in public schools within Khon Kaen Province. The quantitative approach was selected to enable statistical analysis of relationships between variables and to provide generalizable findings for the broader Thai educational context.

5.2 Population and Sample

The target population consisted of all teachers and administrators working in public schools within Khon Kaen Province. According to the Khon Kaen Provincial Education Office, the province has 847 public schools with approximately 18,500 teachers and 1,270 administrators. Using G*Power 3.1.9.7 software for sample size calculation with a medium effect size ($f^2 = 0.15$), alpha level of 0.05, and power of 0.95, the minimum required sample size was determined to be 384 participants.

A stratified random sampling approach was employed to ensure representativeness across different school types and geographical areas. The province was divided into four educational service areas, and schools were categorized by size (small: <200 students, medium: 200-600 students, large: >600 students) and location (urban vs. rural). From each stratum, schools were randomly selected, and within each selected school, participants were randomly chosen from eligible teachers and administrators.

The final sample consisted of 384 participants: 192 teachers and 192 administrators from 96 public schools across Khon Kaen Province. The sample characteristics are presented in Table 1.

Table 1: Sample Characteristics (N = 384)

Characteristic	Category	Frequency	Percentage

Position	Teacher	192	50.0
	Administrator	192	50.0
Gender	Male	156	40.6
	Female	228	59.4
Age	25-35 years	124	32.3
	36-45 years	147	38.3
	46-55 years	89	23.2
	>55 years	24	6.3
Experience	1-5 years	98	25.5
	6-15 years	142	37.0
	16-25 years	96	25.0
	>25 years	48	12.5
School Location	Urban	173	45.1
	Rural	211	54.9
School Size	Small (<200)	118	30.7
	Medium (200-600)	156	40.6
	Large (>600)	110	28.6

5.3 Research Instruments

Three validated instruments were used to collect data:

5.3.1 Administrative Challenges Scale (ACS) The ACS was adapted from previous research and validated for the Thai context. The scale consists of 28 items measuring five dimensions: resource allocation (6 items), communication barriers (6 items), training adequacy (5 items), resistance to change (6 items), and evaluation systems (5 items). Items were rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The scale demonstrated excellent internal consistency (Cronbach's α = 0.89).

5.3.2 Policy Implementation Effectiveness Scale (PIES) The PIES was developed to measure the effectiveness of educational policy implementation across four dimensions: implementation fidelity (7 items), stakeholder engagement (6 items), resource utilization (5 items), and outcome achievement (6 items). The 24-item scale used a 5-point Likert format and showed high reliability (Cronbach's α = 0.92).

5.3.3 Teacher Support Mechanisms Scale (TSMS) The TSMS assessed the availability and quality of teacher support across five dimensions: professional development (6 items), mentorship programs (5 items), resource access (6 items), psychological support (5 items), and recognition systems (5 items). The 27-item scale demonstrated strong internal consistency (Cronbach's α = 0.91).

All instruments were translated into Thai using a forward-backward translation process and validated through expert review and pilot testing with 50 participants not included in the main study.

5.4 Data Collection Procedures

Data collection was conducted over a six-week period from September to October 2024. Research assistants were trained in data collection procedures and ethical considerations. School visits were coordinated through the Khon Kaen Provincial Education Office to ensure official approval and cooperation.

Participants were provided with information sheets explaining the study purpose, procedures, and their rights. Informed consent was obtained before survey administration. Surveys were completed during designated times to minimize disruption to educational activities. Data were collected anonymously to ensure participant confidentiality.

5.5 Data Analysis

Data analysis was conducted using SPSS 29.0 and AMOS 28.0. The analysis plan included:

5.5.1 Descriptive Statistics: Means, standard deviations, frequencies, and percentages were calculated to describe sample characteristics and variable distributions.

5.5.2 Reliability Analysis: Cronbach's alpha coefficients were computed to assess internal consistency of all scales.

5.5.3 Correlation Analysis: Pearson correlation coefficients were calculated to examine bivariate relationships between variables.

5.5.4 Multiple Regression Analysis: Hierarchical multiple regression was used to identify significant predictors of policy implementation effectiveness.

5.5.5 Structural Equation Modeling (SEM): SEM was employed to test the mediating role of teacher support mechanisms and to evaluate the overall theoretical model.

5.6 Ethical Considerations

This study was conducted in accordance with ethical guidelines for human subjects research. Approval was obtained from the Khon Kaen Provincial Education Office and participating schools. All participants provided informed consent, and participation was voluntary with the right to withdraw at any time. Data confidentiality and anonymity were maintained throughout the study process.

6. RESULTS

6.1 Descriptive Statistics

Table 2 presents descriptive statistics for all study variables. The results indicate moderate to high levels across all measured constructs, with teacher support mechanisms showing the highest mean score (M = 3.67, SD = 0.58) and administrative challenges showing the lowest (M = 3.12, SD = 0.62).

Table 2: Descriptive Statistics for Study Variables (N = 384)

Variable	Mean	SD	Skewness	Kurtosis	Min	Max
Administrative Challenges	3.12	0.62	-0.23	-0.18	1.89	4.75

Resource Allocation	3.08	0.71	-0.31	-0.12	1.67	4.83
Communication Barriers	3.24	0.68	-0.19	-0.24	1.83	4.67
Training Adequacy	2.98	0.74	-0.15	-0.31	1.60	4.60
Resistance to Change	3.19	0.69	-0.28	-0.16	1.83	4.83
Evaluation Systems	3.11	0.67	-0.21	-0.19	1.80	4.60
Policy Implementation	3.45	0.54	-0.12	-0.26	2.08	4.67
Implementation Fidelity	3.52	0.61	-0.18	-0.23	2.14	4.71
Stakeholder Engagement	3.41	0.59	-0.09	-0.28	2.17	4.67
Resource Utilization	3.38	0.63	-0.14	-0.24	2.00	4.60
Outcome Achievement	3.49	0.58	-0.16	-0.29	2.17	4.67
Teacher Support	3.67	0.58	-0.31	-0.15	2.15	4.85
Professional Development	3.58	0.66	-0.26	-0.19	2.00	4.83
Mentorship Programs	3.62	0.71	-0.35	-0.11	1.80	4.80
Resource Access	3.71	0.64	-0.33	-0.18	2.17	4.83
Psychological Support	3.69	0.68	-0.29	-0.16	2.20	4.80
Recognition Systems	3.74	0.63	-0.38	-0.13	2.33	4.83

6.2 Correlation Analysis

Pearson correlation analysis revealed significant relationships between all study variables. Table 3 presents the correlation matrix, showing strong negative correlations between administrative challenges and both policy implementation effectiveness ($r = -0.67$, $p < 0.001$) and teacher support mechanisms ($r = -0.58$, $p < 0.001$). A strong positive correlation was found between teacher support mechanisms and policy implementation effectiveness ($r = 0.72$, $p < 0.001$).

Table 3: Correlation Matrix for Study Variables (N = 384)

Variable	1	2	3
1. Administrative Challenges	1		
2. Policy Implementation	-0.67***	1	
3. Teacher Support	-0.58***	0.72***	1
4. Resource Allocation	0.84***	-0.52***	-0.45***
5. Communication Barriers	0.81***	-0.49***	-0.42***
6. Training Adequacy	0.79***	-0.61***	-0.53***
7. Resistance to Change	0.77***	-0.44***	-0.38***
8. Evaluation Systems	0.73***	-0.48***	-0.41***
9. Implementation Fidelity	-0.59***	0.87***	0.61***
10. Stakeholder Engagement	-0.51***	0.83***	0.58***
11. Resource Utilization	-0.48***	0.79***	0.54***
12. Outcome Achievement	-0.54***	0.85***	0.63***
13. Professional Development	-0.49***	0.58***	0.84***
14. Mentorship Programs	-0.42***	0.54***	0.79***

15. Resource Access	-0.51***	0.62***	0.87***
16. Psychological Support	-0.46***	0.57***	0.81***
17. Recognition Systems	-0.44***	0.55***	0.78***

*p < 0.001

6.3 Multiple Regression Analysis

Hierarchical multiple regression analysis was conducted to identify significant predictors of policy implementation effectiveness. The analysis was performed in three steps: Step 1 included demographic variables, Step 2 added administrative challenges dimensions, and Step 3 incorporated teacher support mechanisms dimensions.

Table 4: Hierarchical Multiple Regression Analysis Predicting Policy Implementation Effectiveness

Variable	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
Step 1: Demographics						
Position (Teacher = 1)	0.12*	2.34	0.08	1.89	0.05	1.23
School Location (Urban = 1)	-0.09	-1.78	-0.06	-1.34	-0.03	-0.78
School Size	0.15**	2.91	0.11*	2.42	0.08	1.89
Experience	0.07	1.34	0.05	1.12	0.04	0.98
Step 2: Administrative Challenges						
Resource Allocation			-0.18***	-3.42	-0.09*	-2.01
Communication Barriers			-0.14**	-2.67	-0.07	-1.45
Training Adequacy			-0.31***	-5.89	-0.15**	-3.12
Resistance to Change			-0.12*	-2.34	-0.06	-1.34
Evaluation Systems			-0.15**	-2.89	-0.08	-1.67
Step 3: Teacher Support						
Professional Development					0.21***	4.12
Mentorship Programs					0.16**	3.01
Resource Access					0.24***	4.58
Psychological Support					0.18***	3.45
Recognition Systems					0.14**	2.78
Model Statistics						
R²	0.08		0.52		0.69	

ΔR²	0.08	0.44	0.17
F	8.23***	31.45***	42.67***
ΔF	8.23***	34.78***	21.89***

***p < 0.001, *p < 0.01, p < 0.05*

The final model explained 69% of the variance in policy implementation effectiveness (R^2 = 0.69, $F(16,367)$ = 42.67, $p < 0.001$). In the final step, resource access (β = 0.24, $p < 0.001$), professional development (β = 0.21, $p < 0.001$), and psychological support (β = 0.18, $p < 0.001$) emerged as the strongest positive predictors, while training adequacy challenges (β = -0.15, $p < 0.01$) remained a significant negative predictor.

6.4 Structural Equation Modeling

Structural equation modeling was employed to test the hypothesized mediation model and examine the overall theoretical framework. The model tested whether teacher support mechanisms mediate the relationship between administrative challenges and policy implementation effectiveness.

Table 5: Structural Equation Model Fit Indices

Fit Index	Obtained Value	Acceptable Threshold	Interpretation
χ^2/df	2.87	< 3.00	Good fit
CFI	0.95	> 0.95	Excellent fit
TLI	0.94	> 0.90	Good fit
RMSEA	0.06	< 0.08	Good fit
SRMR	0.05	< 0.08	Good fit
GFI	0.93	> 0.90	Good fit

The structural equation model demonstrated good fit to the data (χ^2/df = 2.87, CFI = 0.95, TLI = 0.94, RMSEA = 0.06, SRMR = 0.05, GFI = 0.93). The results confirmed the mediating role of teacher support mechanisms in the relationship between administrative challenges and policy implementation effectiveness.

Table 6: Standardized Path Coefficients and Mediation Analysis

Path	Standardized Coefficient	SE	t-value	p-value
Direct Effects				
Admin Challenges → Teacher Support	-0.63	0.05	-12.48	< 0.001
Admin Challenges → Policy Implementation	-0.34	0.06	-6.78	< 0.001
Teacher Support → Policy Implementation	0.58	0.05	11.67	< 0.001
Indirect Effects				

Admin Challenges → Teacher Support → Policy Implementation	-0.37	0.04 -8.91	< 0.001
Total Effects			
Admin Challenges → Policy Implementation	-0.71	0.04 -17.23	< 0.001

The mediation analysis revealed that teacher support mechanisms partially mediate the relationship between administrative challenges and policy implementation effectiveness. The indirect effect was significant (β = -0.37, $p < 0.001$), indicating that approximately 52% of the total effect of administrative challenges on policy implementation effectiveness was mediated through teacher support mechanisms.

6.5 Group Comparisons

Additional analyses were conducted to examine differences across key demographic variables. Independent samples t-tests and ANOVA were used to compare groups.

Table 7: Group Comparisons for Key Variables

Variable	Group	N	Mean	SD	t/F	p-value
Position						
Policy Implementation	Teachers	192	3.38	0.56	-2.67	0.008
	Administrators	192	3.52	0.51		
Teacher Support	Teachers	192	3.62	0.61	-1.89	0.059
	Administrators	192	3.72	0.54		
School Location						
Admin Challenges	Urban	173	2.98	0.59	-4.21	< 0.001
	Rural	211	3.23	0.63		
Policy Implementation	Urban	173	3.56	0.52	3.78	< 0.001
	Rural	211	3.37	0.55		
School Size					F	
Teacher Support	Small	118	3.48	0.62	8.92	< 0.001
	Medium	156	3.71	0.54		
	Large	110	3.82	0.56		

Significant differences were found between teachers and administrators in policy implementation effectiveness (t = -2.67, p = 0.008), with administrators reporting higher levels. Rural schools reported significantly higher administrative challenges (t = -4.21, p < 0.001) but lower policy implementation effectiveness (t = 3.78, p < 0.001) compared to urban schools. Larger schools demonstrated significantly higher levels of teacher support (F = 8.92, p < 0.001).

7. DISCUSSION

7.1 Current State of Variables

The findings reveal moderate to high levels across all measured constructs, suggesting that while Thai schools in Khon Kaen Province face significant challenges, they also possess substantial strengths in teacher support and policy implementation. The relatively high mean for teacher support mechanisms (M = 3.67) indicates that schools have established various support systems for their teaching staff, which aligns with recent educational reform initiatives emphasizing teacher professional development (Kerdtip & Sa-au, 2024).

The moderate level of administrative challenges (M = 3.12) suggests that while problems exist, they are not overwhelming the system. This finding contrasts with previous qualitative studies that emphasized severe administrative deficits (Solihah, 2023), potentially indicating improvements in administrative capacity over recent years. However, the relatively lower score for training adequacy (M = 2.98) within the administrative challenges construct highlights a persistent concern that requires targeted intervention.

Policy implementation effectiveness demonstrated a moderate-to-high level (M = 3.45), suggesting that despite existing challenges, schools are achieving reasonable success in translating policies into practice. This finding is encouraging given the complexity of educational reforms in Thailand and supports the effectiveness of recent decentralization efforts that have given local schools more autonomy in implementation approaches (Chantri Polprasert & Anutariya, 2024).

7.2 Relationships Between Variables

The strong negative correlation between administrative challenges and policy implementation effectiveness (r = -0.67, p < 0.001) confirms theoretical predictions and aligns with international research on educational administration (Nsengimana et al., 2024). This relationship demonstrates that as administrative obstacles increase, schools' ability to effectively implement policies diminishes significantly. The magnitude of this correlation suggests that addressing administrative challenges should be a priority for educational policymakers.

The strong positive correlation between teacher support mechanisms and policy implementation effectiveness (r = 0.72, p < 0.001) provides empirical evidence for the critical role of teacher support in successful policy implementation. This finding supports previous research indicating that teachers are key implementers of educational policies and require adequate support to fulfill this role effectively (Chen et al., 2023). The strength of this relationship suggests that investments in teacher support yield substantial returns in terms of policy implementation success.

The negative correlation between administrative challenges and teacher support mechanisms (r = -0.58, p < 0.001) indicates that administrative problems impede the provision of adequate teacher support. This relationship creates a problematic cycle where administrative deficits reduce teacher support, which in turn compromises policy

implementation effectiveness. Breaking this cycle requires simultaneous attention to both administrative capacity building and teacher support enhancement.

7.3 Mediation Analysis Findings

The structural equation modeling results provide strong evidence for the mediating role of teacher support mechanisms in the relationship between administrative challenges and policy implementation effectiveness. The finding that teacher support mediates 52% of the total effect demonstrates that administrative challenges impact policy implementation both directly and indirectly through their effect on teacher support systems.

This mediation finding has important theoretical and practical implications. Theoretically, it supports systems theory perspectives that emphasize the interconnected nature of organizational components (Uttayotha & Scheef, 2021). Practically, it suggests that improving teacher support systems can partially compensate for administrative challenges, providing a viable intervention strategy for schools facing resource constraints.

The partial mediation model indicates that while teacher support is crucial, administrative challenges also have direct effects on policy implementation that cannot be fully addressed through support mechanisms alone. This finding underscores the importance of comprehensive reform approaches that address both administrative capacity and teacher support simultaneously.

7.4 Predictors of Policy Implementation Effectiveness

The multiple regression analysis identified several significant predictors of policy implementation effectiveness, with teacher support dimensions showing the strongest effects. Resource access emerged as the strongest predictor ($\beta = 0.24$, $p < 0.001$), highlighting the fundamental importance of providing teachers with necessary materials and tools for effective instruction. This finding aligns with research emphasizing the critical role of resource availability in educational quality (Sakdadach et al., 2023).

Professional development ($\beta = 0.21$, $p < 0.001$) and psychological support ($\beta = 0.18$, $p < 0.001$) also emerged as strong predictors, emphasizing the multifaceted nature of effective teacher support. These findings support holistic approaches to teacher support that address both professional and personal needs. The significance of psychological support is particularly noteworthy given the increasing recognition of teacher well-being as a critical factor in educational effectiveness (Charoenporn, 2023).

Among administrative challenges, training adequacy remained a significant negative predictor in the final model ($\beta = -0.15$, $p < 0.01$), even after controlling for teacher support mechanisms. This persistent effect suggests that inadequate training for administrators creates systemic problems that cannot be fully compensated by teacher support alone. This finding highlights the need for comprehensive administrator preparation programs.

7.5 Group Differences and Context Effects

The significant differences between urban and rural schools provide important insights into the contextual nature of educational challenges in Thailand. Rural schools reported higher administrative challenges and lower policy implementation effectiveness, confirming

longstanding concerns about educational equity in Thailand (Tantranont & Sawatdeenarunat, 2023). These differences suggest that universal policy approaches may be insufficient and that targeted interventions for rural contexts are necessary.

The finding that larger schools demonstrate higher levels of teacher support aligns with resource theory, suggesting that economies of scale enable larger institutions to provide more comprehensive support systems. However, this relationship also raises equity concerns, as smaller schools, which are more common in rural areas, may be disadvantaged in their ability to support teachers effectively.

The difference between teachers and administrators in perceived policy implementation effectiveness suggests potential disconnects between policy intentions and classroom realities. Administrators' higher ratings may reflect their closer involvement with policy development and their organizational responsibility for implementation success, while teachers' lower ratings may reflect the practical challenges of classroom implementation.

7.6 Implications for Theory and Practice

7.6.1 Theoretical Implications

This study makes several important theoretical contributions. First, it provides empirical support for systems theory applications in educational administration by demonstrating the interconnected nature of administrative challenges, teacher support, and policy implementation. The mediation model specifically illustrates how system components influence each other in complex ways that require comprehensive rather than piecemeal interventions.

Second, the study extends implementation theory by identifying specific mechanisms through which implementation effectiveness is achieved. The finding that teacher support mediates the relationship between administrative challenges and implementation outcomes provides a more nuanced understanding of implementation processes than previous research has offered.

Third, the study contributes to our understanding of educational equity by demonstrating how contextual factors (urban/rural, school size) influence the relationships between key variables. This finding suggests that equity considerations must be built into theoretical models of educational effectiveness.

7.6.2 Practical Implications

The findings have several important practical implications for educational policymakers and administrators. First, the strong predictive power of teacher support mechanisms suggests that investments in professional development, resource provision, and psychological support yield substantial returns in terms of policy implementation effectiveness. Policymakers should prioritize these areas in budget allocation decisions.

Second, the mediation findings suggest that teacher support can partially compensate for administrative challenges, providing a viable intervention strategy for resource-constrained contexts. Schools facing administrative limitations can focus on strengthening

teacher support systems as an interim measure while working to address broader administrative issues.

Third, the persistent importance of administrator training suggests that professional development for educational leaders should be a policy priority. The finding that training adequacy remained a significant predictor even after controlling for teacher support indicates that administrative capacity building cannot be overlooked in comprehensive reform efforts.

Fourth, the urban-rural differences highlight the need for differentiated policy approaches that account for contextual variations. Rural schools may require additional support and resources to achieve implementation effectiveness comparable to urban institutions.

7.7 Limitations and Future Research

Several limitations should be acknowledged when interpreting these findings. First, the cross-sectional design precludes causal inferences, despite the theoretical rationale for the proposed relationships. Longitudinal research would strengthen causal claims and provide insights into how relationships evolve over time.

Second, the study relied on self-report measures, which may be subject to social desirability bias and common method variance. Future research could incorporate objective measures of policy implementation effectiveness and multiple informant perspectives to address these concerns.

Third, while the study focused on Khon Kaen Province to ensure depth of analysis, the generalizability to other provinces or countries may be limited. Replication studies in different contexts would strengthen the external validity of the findings.

Fourth, the study did not examine specific policy types or implementation phases, which may influence the relationships observed. Future research could investigate how the findings vary across different types of educational policies or stages of implementation.

Fifth, the study did not include student outcome measures, which represent the ultimate goal of educational policies. Future research should examine how the relationships identified in this study ultimately influence student learning and achievement.

8. CONCLUSION

This study provides comprehensive empirical evidence regarding the relationships between administrative challenges, teacher support mechanisms, and policy implementation effectiveness in Thai public schools. The findings demonstrate that teacher support mechanisms play a crucial mediating role in translating administrative capacity into policy implementation success, with implications for both theory and practice in educational administration.

8.1 Key Findings Summary

The study's key findings include: (1) moderate to high levels of teacher support and policy implementation effectiveness despite persistent administrative challenges; (2) strong negative correlations between administrative challenges and both teacher support and policy

implementation effectiveness; (3) significant mediation effects showing that teacher support mechanisms account for 52% of the relationship between administrative challenges and policy implementation; (4) resource access, professional development, and psychological support as the strongest predictors of implementation effectiveness; and (5) significant contextual differences between urban/rural and large/small schools.

8.2 Contributions to Knowledge

This research makes several important contributions to the educational administration literature. It provides the first large-scale quantitative analysis of these relationships in the Thai context, offers empirical support for systems theory applications in educational settings, extends implementation theory through identification of specific mediation mechanisms, and demonstrates the importance of contextual factors in educational effectiveness models.

8.3 Recommendations for Policy and Practice

Based on the findings, several recommendations emerge for educational policymakers and practitioners:

8.3.1 Strengthen Teacher Support Systems: Prioritize investments in professional development programs, resource access, and psychological support services for teachers. These investments show the highest returns in terms of policy implementation effectiveness.

8.3.2 Develop Comprehensive Administrator Training: Implement systematic professional development programs for educational administrators, focusing on policy implementation skills, change management, and teacher support strategies.

8.3.3 Address Rural-Urban Disparities: Develop targeted intervention programs for rural schools that address their specific challenges and provide additional resources to achieve equity in implementation effectiveness.

8.3.4 Implement Holistic Reform Approaches: Recognize that administrative challenges and teacher support are interconnected and require simultaneous attention rather than sequential interventions.

8.3.5 Establish Monitoring and Evaluation Systems: Develop systematic approaches to monitoring policy implementation effectiveness and teacher support quality to enable continuous improvement.

8.4 Future Research Directions

Future research should consider longitudinal designs to establish causal relationships, incorporate objective measures of implementation effectiveness and student outcomes, examine specific policy types and implementation phases, investigate the role of school leadership in mediating relationships, and replicate findings in different geographical and cultural contexts.

8.5 Final Observations

The findings of this study underscore the complex, interconnected nature of educational systems and the importance of comprehensive approaches to educational reform. While administrative challenges remain significant in Thai schools, the strong mediating role

of teacher support mechanisms provides hope and direction for improvement efforts. By focusing on teacher support as a lever for change while simultaneously addressing administrative capacity, Thai schools can enhance their policy implementation effectiveness and ultimately improve educational outcomes for all students.

The success of educational reforms depends not only on the quality of policies but also on the systems and supports in place to implement them effectively. This study provides evidence that teacher support mechanisms are critical components of these implementation systems and deserve significant attention from policymakers and practitioners committed to educational improvement.

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APPENDICES

Appendix A: Research Instrument - Administrative Challenges Scale (ACS)

Instructions: Please rate the extent to which you agree with each statement about administrative challenges in your school using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Resource Allocation (6 items)
1. Our school has adequate funding for educational programs
2. Resources are distributed fairly among different departments
3. Budget allocation processes are transparent and efficient
4. Financial resources match our educational priorities
5. We have sufficient funds for teacher professional development
6. Infrastructure maintenance receives adequate funding

Communication Barriers (6 items) 7. Information flows effectively between administration and teachers 8. Communication channels in our school are clear and accessible 9. Feedback from teachers reaches decision-makers effectively 10. Policy changes are communicated clearly and timely 11. There are regular opportunities for two-way communication 12. Administrative decisions are well-explained to staff

Training Adequacy (5 items) 13. Administrators receive sufficient training for their roles 14. Training programs are relevant to current challenges 15. Professional development opportunities are regularly available 16. Training quality meets professional standards 17. Skills development programs address actual needs

Resistance to Change (6 items) 18. Staff members embrace new educational initiatives 19. Change processes are well-managed in our school 20. There is strong support for innovation and improvement 21. Stakeholders participate actively in change efforts 22. Resistance to new policies is minimal 23. Change implementation is systematic and planned

Evaluation Systems (5 items) 24. Our school has effective performance monitoring systems 25. Evaluation processes are fair and transparent 26. Assessment results are used for continuous improvement 27. Accountability measures are clearly defined 28. Evaluation feedback leads to meaningful changes

Appendix B: Research Instrument - Policy Implementation Effectiveness Scale (PIES)

Instructions: Please rate the extent to which you agree with each statement about policy implementation in your school using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Implementation Fidelity (7 items)
1. Educational policies are implemented as intended
2. Policy guidelines are followed consistently
3. Implementation maintains policy objectives
4. Adaptation of policies preserves core principles
5. Quality standards are maintained during implementation
6. Policy requirements are clearly understood by implementers
7. Implementation processes align with policy specifications

Stakeholder Engagement (6 items) 8. Teachers participate actively in policy implementation 9. Community members support policy initiatives 10. Students benefit from policy implementation 11. Parents are informed about policy changes 12. Stakeholder feedback influences implementation approaches 13. Collaboration enhances implementation effectiveness

Resource Utilization (5 items) 14. Available resources are used efficiently for implementation 15. Resource allocation supports policy objectives 16. Material resources are adequate for effective implementation 17. Human resources are appropriately deployed 18. Technology resources support implementation goals

Outcome Achievement (6 items) 19. Policy implementation achieves intended outcomes 20. Educational quality improves through policy implementation 21. Student learning benefits from implemented policies 22. Implementation results meet expectations 23. Long-term goals are being achieved 24. Success indicators show positive trends

Appendix C: Research Instrument - Teacher Support Mechanisms Scale (TSMS)

Instructions: Please rate the extent to which you agree with each statement about teacher support in your school using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Professional Development (6 items)
1. Quality professional development opportunities are regularly available
2. Training programs address teachers' specific needs
3. Professional development is relevant to current educational challenges
4. Teachers have access to continuing education opportunities
5. Skill development programs enhance teaching effectiveness
6. Professional learning communities are actively supported

Mentorship Programs (5 items) 7. Experienced teachers provide guidance to new colleagues 8. Mentoring relationships are formally supported 9. Peer collaboration is encouraged and facilitated 10. Knowledge sharing among teachers is promoted 11. Collaborative problem-solving opportunities exist

Resource Access (6 items) 12. Teachers have access to necessary teaching materials 13. Classroom resources are adequate for effective instruction 14. Technology resources support teaching and learning 15. Library and information resources meet educational needs 16. Instructional materials are current and relevant 17. Resource requests are processed efficiently

Psychological Support (5 items) 18. Teachers receive emotional support when needed 19. Stress management resources are available 20. Work-life balance is promoted and supported 21. Counseling services are accessible to staff 22. Mental health and wellbeing are prioritized

Recognition Systems (5 items) 23. Teacher achievements are acknowledged and celebrated 24. Outstanding performance receives appropriate recognition 25. Professional accomplishments are publicly acknowledged 26. Reward systems motivate continued excellence 27. Teacher contributions are valued and appreciated

Appendix D: Statistical Analysis Output Summary

Table D1: Factor Loadings for Administrative Challenges Scale

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
RA1	0.78	0.12	0.15	0.09	0.11
RA2	0.82	0.08	0.12	0.14	0.07
RA3	0.75	0.19	0.11	0.08	0.16
RA4	0.79	0.15	0.09	0.12	0.13
RA5	0.73	0.11	0.18	0.15	0.09
RA6	0.77	0.14	0.13	0.11	0.12
CB1	0.13	0.81	0.09	0.14	0.08
CB2	0.16	0.78	0.12	0.11	0.15
CB3	0.11	0.83	0.08	0.09	0.12
CB4	0.14	0.76	0.15	0.13	0.07
CB5	0.12	0.79	0.11	0.16	0.11
CB6	0.18	0.74	0.14	0.08	0.14

Table D2: Model Comparison for Structural Equation Models

Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR	AIC
Direct Effects Only	456.78	67	6.82	0.87	0.84	0.12	0.09	578.78
Partial Mediation	192.34	67	2.87	0.95	0.94	0.06	0.05	314.34
Full Mediation	298.45	68	4.39	0.91	0.88	0.09	0.07	418.45

Table D3: Reliability Statistics for All Scales

Scale/Subscale	Cronbach's α	Items	Mean Inter-item Correlation
Administrative Challenges	0.89	28	0.34
Resource Allocation	0.84	6	0.47
Communication Barriers	0.83	6	0.45
Training Adequacy	0.82	5	0.48
Resistance to Change	0.81	6	0.42
Evaluation Systems	0.80	5	0.44
Policy Implementation	0.92	24	0.41
Implementation Fidelity	0.87	7	0.49
Stakeholder Engagement	0.85	6	0.46
Resource Utilization	0.84	5	0.51
Outcome Achievement	0.86	6	0.47
Teacher Support	0.91	27	0.38
Professional Development	0.86	6	0.48
Mentorship Programs	0.83	5	0.50
Resource Access	0.87	6	0.52
Psychological Support	0.84	5	0.49
Recognition Systems	0.82	5	0.47

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