Article

Legal and Institutional Drivers of Teacher Job Performance: A Regulatory and Technological Analysis within a Developing Country's Education System

Article History:

Name of Author:
Israel Kofi Nyarko[1], Stephen Afenyo Dehlor[2], Evelyn Esenam Kissiedu[3], Joseph Agbeka[4] and Michael Ahiaga Mawuta[5]

Affiliation:
[1]*Department of Management Sciences - Evangelical Presbyterian University College, Ho, Ghana.*
[2]*Office of the Registrar - Regional Maritime University, Accra, Ghana.*
[3]*Department of Management Sciences - Evangelical Presbyterian University College, Ho, Ghana.*
[4]*Department of Marketing and Supply Chain Management, Evangelical Presbyterian University College, Ho, Ghana.*
[5]*Department of Marketing and Supply Chain Management, Evangelical Presbyterian University College, Ho, Ghana.*

Corresponding Author:
Israel Kofi Nyarko

Abstract: Teacher performance in Ghana continues to attract policy attention as reforms in professional standards, school governance, and digital transformation reshape expectations for effective teaching. Understanding how legal, institutional, and technological forces interact is essential for improving classroom outcomes. The study investigates the combined effects of legal frameworks, institutional conditions, and technological readiness on teacher job performance in Ghana's pre-tertiary education system. While existing research recognises individual influences on teacher performance, limited empirical work has examined how these domains interact as a system. This study fills that gap by integrating regulatory, organisational, and technological dimensions. A quantitative explanatory design was used with data from 300 teachers and school leaders. Regression, mediation (PROCESS Model 4), and moderation (Model 1) analyses were conducted. All three predictors significantly influenced performance. Institutional drivers had the strongest effect, technological readiness amplified institutional influence, and institutional drivers partially mediated the impact of legal frameworks. Teacher performance emerges from the interplay of regulatory clarity, strong institutional environments, and digital capability. Coordinated reforms across these domains are essential for sustainable improvement. The study offers a systems-based model of teacher performance, demonstrating empirically how legal, institutional, and technological domains interact. It provides actionable insights for policymakers, school leaders, and stakeholders seeking holistic strategies to strengthen teacher effectiveness in developing-country contexts.

Keywords: Professional standards, educational governance, instructional effectiveness, school leadership, digital capacity, performance modelling.

INTRODUCTION

A complex interplay of legal mandates, institutional norms, and the expanding use of digital technologies continues to shape teacher job performance in Ghana. Over the past decade, Ghana has intensified reforms aimed at strengthening professionalism,

accountability, and regulatory oversight within the teaching profession. A central component of this policy shift is the transition from the Diploma in Basic Education (DBE) to the four-year Bachelor of Education (B.Ed.) model introduced in 2018, designed to elevate the professional competence of teachers and align national teacher preparation with global standards (Akyeampong, 2020). Yet, as several studies have shown, the success of this reform is heavily mediated by institutional capacity, resource availability, and the consistency of implementation across districts, which vary significantly in their governance strength and logistical support (Akyeampong, 2020; Ministry of Education, 2019).

Complementing the teacher education reforms, the National Teaching Council (NTC) has institutionalised the National Teachers' Standards (NTS) as the definitive regulatory benchmark for teacher professionalism. The NTS outlines explicit expectations regarding professional values, pedagogical practices, ethical conduct, and continuous development obligations (National Teaching Council, 2021). While these standards provide legal clarity and a unified national frame for professional behaviour, empirical reviews reveal persistent disparities in compliance, particularly in rural and under-resourced districts where monitoring and supervisory structures remain weak or overstretched (Ministry of Education, 2019; Aheto, 2012. These disparities signal a recurring challenge: legal frameworks are only as effective as the institutions empowered to enforce and support them.

Institutional culture and teacher agency further complicate the governance landscape. Recent scholarship underscores that teacher performance is deeply influenced by motivation, autonomy, and professional identity. A 2025 structural equation modelling study found that teacher agency strongly predicts instructional behaviour and is itself shaped by organisational support systems and the motivational climate of the school (Amoah et al., 2025). This reinforces earlier findings that effective supervision, leadership styles, and resource adequacy significantly correlate with teacher engagement and performance outcomes (Amenu, 2022; Sarah et al., 2023; Legede, 2025). Together, these insights suggest that laws and standards provide direction, but it is institutional life, its culture, leadership, and professional relationships, that gives those laws practical force.

Alongside legal and institutional developments, technology has become an increasingly important dimension of Ghana's educational governance ecosystem. The deployment of digital platforms such as the Educational Management Information System (EMIS), ICT-supported classroom tools, and electronic supervision systems reflects the state's ambition to modernise school management and strengthen accountability. Evidence from a 2025 study on public senior high schools shows that EMIS use substantially improves administrative efficiency when teachers and school leaders receive adequate training and institutional backing (Abdul-Rahman et al., 2025). Nevertheless, digital transformation remains uneven. Reviews consistently highlight challenges including unreliable internet connectivity, inadequate ICT infrastructure, and varying levels of digital competence among teachers (Teye, 2024; Agyei & Voogt, 2019). Additional research confirms substantial gaps in digital pedagogical competence, even among university lecturers who often report only basic ICT proficiency (Asare & Oteng, 2025).

These technological disparities extend into basic and secondary education as well. Studies report that teachers frequently lack access to appropriate digital tools and training, constraining the potential of ICT to influence instructional quality or performance management (Sarpong, 2020). Moreover, district-level adoption of EMIS and other digital monitoring tools is often inconsistent, reflecting broader governance and capacity inequalities between local education offices (Boakye-Yiadom et al., 2023). These findings underscore that technology amplifies institutional strengths but also exposes institutional weaknesses.

Despite meaningful progress, persistent challenges continue to hinder teacher performance. Resource shortages, uneven supervision, and mismatches between national regulatory ambitions and school-level realities remain recurring issues (Akyeampong, 2020; Amenu, 2022). Decentralised governance further complicates implementation, as district education offices interpret and enact policy directives with varying levels of fidelity and capacity (Ministry of Education, 2019; Ainscow et al., 2013). This results in significant variation in teacher performance outcomes across regions and school types.

Taken together, these strands of evidence illustrate a highly dynamic ecosystem in which legal frameworks, institutional capacity, teacher agency, and technological systems interact to shape teacher job performance. Understanding how these forces reinforce or constrain one another is critical for designing regulatory and technological interventions that genuinely support teacher effectiveness, rather than merely prescribing it. Ultimately, the Ghanaian case reminds us that improving teacher performance in developing-country contexts requires reforms that work not only on paper, but in practice, within the lived institutional and technological realities of schools.

1.1 Problem Statement

Teacher job performance remains a persistent and multifaceted challenge in Ghana's education system despite substantial legal, institutional, and technological reforms implemented over the past decade. The rollout of the four-year Bachelor of Education (B.Ed.) programme in 2018, alongside the enforcement of the National Teachers' Standards (NTS), sought to enhance teacher professionalism, elevate instructional quality, and strengthen accountability across basic and secondary education (Akyeampong, 2020; National Teaching Council, 2021). Yet significant disparities in teacher effectiveness continue to emerge across schools and districts, particularly in rural, deprived, and low-resource communities where institutional support systems, supervision mechanisms, and leadership capacity remain weak or inconsistent (Ministry of Education, 2019; Amenu, 2022; Sarah et al., 2023). These disparities mirror broader evidence across sub-Saharan Africa showing that reforms aimed at professionalising teaching often fail to achieve intended outcomes when institutional capacities are uneven or when policy implementation relies heavily on local leadership and resource availability (Amoah et al., 2025; Hulpia et al., 2009).

At the same time, Ghana's increasing investment in education technology, including digital monitoring tools, the Educational Management Information System (EMIS), school-level ICT integration initiatives, and data-driven accountability systems, has not yielded the expected improvements in teaching quality or school-level performance. Persistent challenges such as unreliable ICT infrastructure, limited digital literacy among teachers, and inconsistent use of digital platforms have constrained the potential of technology to enhance supervision, reporting, and decision-making processes (Abdul-Rahman et al., 2025; Agyei & Voogt, 2019; Asare & Oteng, 2025). Research also shows that without adequate training and leadership support, digital tools tend to be underutilised, reinforcing existing inequalities in school performance rather than reducing them (Gyamfi, 2021; Tondeur et al., 2017). Moreover, district-level administrative offices often lack the technical capacity to leverage EMIS data effectively, resulting in weak monitoring systems and fragmented information flows (Boakye-Yiadom et al., 2023).

Collectively, these dynamics point to a deeper structural problem: the interaction between legal frameworks, institutional environments, and technological systems remains insufficiently theorised and empirically understood within Ghana's education landscape. This gap between policy intention and school-level practice has been repeatedly documented in studies highlighting inconsistencies in supervision, variability in leadership effectiveness, and the mismatch between national standards and local implementation realities (Ainscow et al., 2013; Darling-Hammond, 2010). As Ghana continues to reform its teacher education system and expand its digital infrastructure, there is a pressing need for an integrated, evidence-based examination of how legal mandates, institutional capacities, and digital readiness jointly shape teacher job performance. Such an analysis is crucial for identifying where reforms succeed, where they stall, and how governance, technology, and professional standards can be aligned to produce meaningful improvements in teaching and learning.

1.2 Research Gap

Although a growing body of scholarship has explored teacher education reforms, digitalization in schools, and factors influencing teacher motivation in Ghana, the literature remains highly fragmented and largely siloed. Prior research has tended to examine single dimensions of teacher effectiveness in isolation. For instance, studies on teacher preparation and professionalization have highlighted the strengths and challenges of the B.Ed. reform and related policy shifts (Akyeampong, 2020), while others have documented persistent barriers to ICT adoption in Ghanaian classrooms, including inadequate infrastructure and low digital readiness (Agyei & Voogt, 2019; Asare & Oteng, 2025). Similarly, work on teacher motivation and agency underscores how professional identity, autonomy, and organisational support shape teachers' instructional behaviour (Amoah et al., 2025). Despite these valuable contributions, the literature lacks an integrated analytical framework that explains how legal regulations, institutional capacities, and technological systems work together to influence teacher job performance.

Additionally, although regulatory instruments such as the National Teachers' Standards (NTS) clearly outline expected teacher competencies and ethical obligations, empirical studies examining the enforcement, consistency, and institutional interpretation of these standards remain limited (National Teaching Council, 2021; Ministry of Education, 2019). Evidence suggests significant variation in how schools, especially those in rural or resource-constrained districts, interpret and operationalise national professional standards, yet this variation has rarely been systematically studied (Amenu, 2022; Sarah et al., 2023). This gap is especially critical given the centrality of institutional culture, leadership, and supervision to effective policy implementation.

Likewise, while digital reforms such as the Educational Management Information System (EMIS) have been evaluated in terms of functionality,

adoption, and administrative efficiency, far less is known about how these technologies shape, enable, or constrain teacher performance at the classroom level (Abdul-Rahman et al., 2025; Gyamfi, 2021). Much of the existing research on educational technology in Ghana focuses on skills acquisition, ICT access, or user attitudes, leaving unanswered questions about the role of digital systems in monitoring performance, strengthening accountability, or supporting instructional improvement.

Taken together, these limitations reveal a significant research gap: a comprehensive, empirically grounded understanding of how legal frameworks, institutional environments, and technological systems interact to influence teacher job performance in developing-country contexts. No existing study integrates these three dimensions into a unified explanatory model, despite their combined importance in shaping teacher effectiveness. This study addresses this gap by examining the interconnected regulatory, institutional, and technological determinants of teacher job performance within Ghana's evolving education system.

1.3 Purpose Statement
The purpose of this study is to examine the legal and institutional factors that shape teacher job performance in Ghana by analysing how national regulatory frameworks, school-level institutional conditions, and emerging technological systems interact to influence teachers' professional practices. The study investigates the implementation of recent teacher education reforms, the operationalisation of the National Teachers' Standards (NTS), the effectiveness of school governance and supervisory structures, and the role of ICT-enabled administrative tools such as EMIS in supporting or constraining teacher effectiveness. Through this integrated approach, the study seeks to generate a comprehensive understanding of the combined regulatory, institutional, and technological determinants of teacher performance within a developing-country context. The insights derived are intended to guide policymakers, regulatory bodies, and educational leaders in strengthening legal compliance, enhancing institutional capacity, and deepening digital integration to promote improved teacher performance across Ghana's education system.

1.4 Hypothesis
The study proposes a set of hypotheses to examine how legal, institutional, and technological forces shape teacher job performance in Ghana. These hypotheses reflect the expected relationships outlined in the conceptual framework and guide the empirical analysis. Each hypothesis tests how these

domains independently and jointly influence performance outcomes.

H1: Legal and regulatory frameworks, including national teaching standards and teacher education reforms, have a significant positive effect on teacher job performance in Ghana.

H2: Institutional factors such as leadership, supervision, school culture, and resource availability significantly predict teacher job performance.

H3: Technological factors, including EMIS usage, ICT competence, and digital infrastructure, significantly enhance teacher job performance.

2.0 LITERATURE REVIEW
2.1 Introduction
Teacher job performance in developing-country education systems is increasingly examined through multi-dimensional lenses that include legal mandates, institutional capacities, and technological innovations. In Ghana, recent reforms in teacher education, professional standards, and school governance have created a regulatory environment aimed at enhancing professionalism, accountability, and instructional quality (Akyeampong, 2020; National Teaching Council, 2021). At the same time, the growth of digital administrative tools such as the Educational Management Information System (EMIS) is reshaping how teacher performance is monitored and supported (Abdul-Rahman et al., 2025). This chapter reviews the legal, institutional, and technological factors influencing teacher job performance, highlighting relevant empirical studies and theoretical contributions from 2018 to the present.

2.2 The Legal Environment and Teacher Performance
National laws, regulatory tools, and statutory reforms play a central role in shaping Ghana's teacher performance landscape. The introduction of the four-year Bachelor of Education programme in 2018 marked a major legal and policy shift intended to elevate teacher professionalism, strengthen content and pedagogical knowledge, and align pre-service training with global standards for teaching quality (Akyeampong, 2020). This reform is reinforced by the National Teachers' Standards (NTS), which legally define professional values, ethical conduct, pedagogical competencies, and continuous professional development requirements expected of every Ghanaian teacher (National Teaching Council, 2021). As a regulatory instrument, the NTS serves as the benchmark for appraisal, licensing, and promotion, positioning legal compliance as a pathway to improved classroom practice.

Despite these structured reforms, legal mandates alone have not been sufficient to guarantee improvements in teacher effectiveness. The Ministry of Education's (2019) sector performance report documents persistent gaps in supervision, weak enforcement of professional standards, and inconsistent application of sanctions for non-compliance, particularly in rural and under-resourced districts. These disparities reveal the limitations of statutory reforms when institutional mechanisms, such as district education oversight, school governance structures, and leadership capacity, are uneven (Amenu, 2022; Sarah et al., 2023). Research on educational governance emphasises that legal frameworks must be supported by strong institutional alignment, clearly defined implementation roles, and sufficient resources to ensure fidelity and consistency (Amoah et al., 2025; Ainscow et al., 2013).

International literature further reinforces that educational laws improve teacher performance only when they are enforceable, transparent, and embedded within supportive institutional cultures (Darling-Hammond, 2010; OECD, 2019). Studies across sub-Saharan Africa show similar patterns: strong regulatory policies often fail to translate into improved teaching quality when local conditions, leadership, monitoring structures, workload, and incentives, do not support implementation (Samonova, 2025; Sahlberg, 2011). Moreover, decentralised governance in Ghana allows districts varying degrees of discretion in enforcing national regulations, creating variability in teacher appraisal, supervision, and adherence to standards (Boakye-Yiadom et al., 2023).

A growing body of Ghanaian research highlights that effective legal regulation also depends on complementary institutional supports such as consistent supervision, adequate training on professional standards, and reliable mechanisms for teacher accountability (Appiah & Esia-Donkoh, 2016; Legede, 2025). Without these elements, even well-designed legal frameworks risk becoming symbolic rather than transformative. In this regard, legal reforms must be understood not merely as statutory provisions but as dynamic tools that require institutional coherence, stakeholder understanding, and deliberate enforcement to influence teacher performance meaningfully.

Taken together, the legal environment provides the structural foundation for teacher professionalism in Ghana, but its impact on job performance is mediated by institutional capacity, leadership effectiveness, and the accountability systems that operationalise policy at the school level. This underscores the need for an integrated perspective linking law, governance, and practice in understanding teacher performance.

2.3 Institutional Drivers of Teacher Job Performance

Institutional structures, school leadership, supervision, resource availability, organizational culture, and support systems play decisive roles in shaping teacher performance. Ghana's decentralised governance model places significant responsibility for teacher supervision and performance management at the district and school levels. However, research shows that many of these institutions lack adequate resources, training, and monitoring tools to support teachers (Ministry of Education, 2019) effectively.

Teacher agency, defined as a teacher's ability to make autonomous professional decisions, is strongly influenced by institutional culture and workplace motivation. Amoah et al. (2025) found that teacher agency significantly predicts instructional performance, but agency itself is shaped by motivation, autonomy, and supportive supervisory structures. This suggests that institutional environments mediate the translation of legal standards into actual teaching behaviour.

Institutional weaknesses such as inadequate instructional materials, overcrowded classrooms, weak supervision, and inconsistent administrative support have been repeatedly documented in Ghana and other developing countries (Agyei & Voogt, 2019). These factors undermine teachers' ability to meet professional expectations, even when legal frameworks are well established.

2.4 Technology as a Determinant of Teacher Performance

Digital tools have become essential to modern education systems. In Ghana, the implementation of EMIS, ICT labs, digital content platforms, and teacher training portals shows the government's commitment to technology integration. Abdul-Rahman et al. (2025) found that EMIS adoption significantly enhances record keeping, supervision, and administrative efficiency when staff are appropriately trained.

However, the potential of technology to improve teacher performance remains inconsistent. A national review by Teye (2024) observed that infrastructural limitations, limited digital skills, frequent system outages, and unequal access across regions hinder technology integration. Asare and Oteng (2025) similarly reported that universities show moderate digital preparedness among teachers, but gaps still exist in advanced pedagogical ICT skills.

Studies in secondary schools show that even when devices are available, many teachers lack the training or confidence to effectively incorporate ICT into teaching (Agyei & Voogt, 2019). This suggests that technological reforms need to be supported by institutional backing and capacity development.

2.5 Empirical Evidence from Ghana and Comparable Contexts

Recent empirical studies conducted between 2018 and 2025 provide important insights into the interplay of legal, institutional, and technological factors influencing teacher job performance in Ghana. Evidence shows that legal and regulatory standards can enhance professional behavior and instructional quality, but their effect heavily depends on consistent enforcement and the strength of institutional support structures. The National Teachers' Standards, for example, establish clear expectations for teacher conduct and pedagogical practice, yet the impact of these standards varies widely across schools due to differences in supervision and compliance mechanisms (National Teaching Council, 2021). Similarly, the major reform in Ghana's teacher education system, which replaced the Diploma in Basic Education with the Bachelor of Education program, was intended to improve teacher competency but has faced uneven implementation, resulting in varied performance outcomes across districts (Akyeampong, 2020).

Institutional environments further influence how teachers approach their professional responsibilities. Studies emphasize the importance of strong leadership, adequate resources, and supportive school cultures in helping teachers turn policy expectations into classroom practices. Research on teacher agency confirms that motivation, autonomy, and institutional support are key predictors of instructional performance, indicating that institutional dynamics mediate the impact of legal reforms on daily teaching behavior (Amoah et al., 2025). Simultaneously, technological systems have become vital tools for administrative management and instructional support. Empirical studies on the use of the Educational Management Information System (EMIS) show that when teachers and administrators receive proper training, technology can improve record-keeping, monitoring, and efficiency in school operations (Abdul-Rahman et al., 2025). However, the integration of technology remains uneven. National reviews reveal ongoing challenges such as limited digital literacy, inadequate infrastructure, and unequal access to ICT resources, all of which hinder schools' ability to use technology for better performance (Teye, 2024; Agyei & Voogt, 2019).

Overall, the evidence indicates that teacher performance in Ghana is influenced by the interplay of legal requirements, institutional capacity, and technological readiness. Legal frameworks set the direction, but institutions determine how well these mandates are implemented, while technological tools can either enhance or hinder performance based on the level of skills and infrastructure available. This mix of factors creates a dynamic environment that continues to impact teacher performance outcomes in Ghana's growing education system.

2.6 Theoretical Framework

This study is anchored in three theoretical perspectives:

2.6.1 Institutional theory

Institutional theory indicates that rules, norms, and cultural expectations shape behavior within organizations. Schools function within institutional environments influenced by national laws, regulatory agencies, professional standards, and governance structures. Compliance with these norms determines how teachers behave and perform (Amoah et al., 2025). In Ghana, institutional theory clarifies why legal reforms might not always yield consistent results; institutions interpret and enforce standards differently.

2.6.2 Human capital theory

Human capital theory highlights the importance of education, skills, and professional development in improving performance. Ghana's transition to the B.Ed. program and focus on continuous professional development demonstrate a human capital investment approach (Akyeampong, 2020). Teachers' skills, training quality, and access to development opportunities affect their job performance.

2.6.3 Technology acceptance and use (Adapted from TAM Models)

Technology acceptance theory states that successful digital integration relies on perceived usefulness, ease of use, institutional support, and training. Studies in Ghana confirm that teachers' use of EMIS and ICT tools enhances performance only when there is sufficient training, infrastructure, and institutional backing (Teye, 2024; Abdul-Rahman et al., 2025).

Together, these theories offer a multi-layered perspective for analyzing teacher performance within legal, institutional, and technological environments.

2.7 Conceptual Framework

This framework rests on a simple but powerful idea: teachers do not work in a vacuum. Their performance grows out of the world around them—the laws that define their profession, the institutions that shape their daily practice, and the technologies that increasingly support their work.
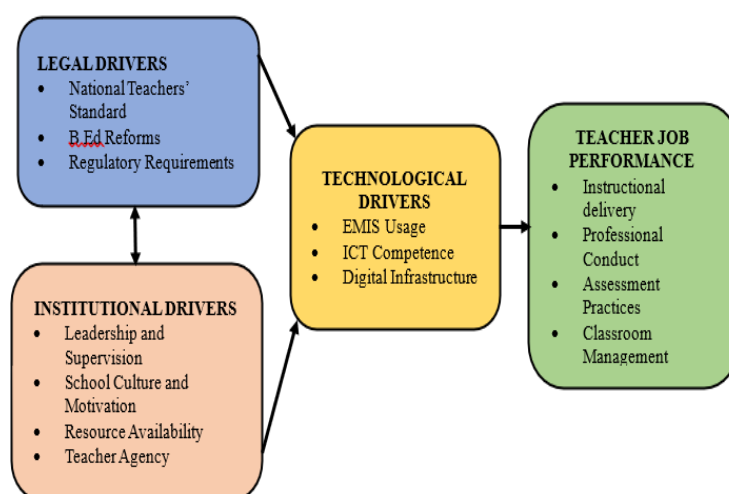

Figure 1: Conceptual Framework

Ghana's legal and regulatory environment sets the formal expectations for professionalism. The National Teachers' Standards and the B.Ed. reforms express what the country hopes every teacher will become. But laws on paper only matter if they live in practice.

Schools breathe life into these laws. Headteachers, supervisors, resource flows, and school culture determine whether teachers feel supported or stranded. When institutions are strong, teachers gain the confidence and motivation to teach well. When institutions are weak, even good policies collapse at the classroom door.

Technology adds a third dimension. Systems like EMIS, digital tools, and ICT training can strengthen supervision, simplify administrative work, and enrich teaching. But technology only helps when a school has the skills, infrastructure, and patience to use it well.

The teacher stands at the centre of these three forces. What pupils finally experience in the classroom, clarity of teaching, fairness in assessment, responsible conduct, energy, and commitment, reflects the combined effect of legal expectations, institutional realities, and technological capacity.

Performance improves when legal frameworks clearly define professionalism, institutions provide leadership, support, and supervision, and technology strengthens both administration and teaching.

3.0 METHODOLOGY

The study adopts a quantitative explanatory design to explore how legal, institutional, and technological drivers shape teacher job performance in Ghana. This design allows the research to move beyond description and actually test the strength and direction of relationships proposed in the conceptual framework. The study is situated within Ghana's pre-tertiary education system, drawing from public basic and senior high schools across diverse regions. These settings provide a rich tapestry of policy implementation realities, leadership styles, resource levels, and digital readiness, making them ideal for examining how laws, school structures, and technology converge to influence the everyday work of teachers.

A sample of 315 respondents including teachers, headteachers, and assistant heads, is selected through a combination of stratified, proportionate, and simple random sampling. This ensures that voices are captured from rural, peri-urban, and urban schools, and across different levels of the education system. Data is collected using a carefully structured questionnaire built around the study's four central constructs: legal drivers, institutional drivers, technological drivers, and teacher job performance. Each construct is measured through validated Likert-scale items adapted from existing literature and refined through expert review. The questionnaire is pilot-tested, and its reliability is confirmed through Cronbach's alpha and early factor analysis to ensure the items genuinely capture the concepts they are designed to measure.

Analysis is conducted using a suite of statistical tools, including SPSS and SEM-based software such as AMOS or SmartPLS. The analytical process begins with descriptive statistics to capture patterns in the data, moves into correlation and multiple regression to test direct effects, and then examines deeper interactions through mediation and moderation analysis. This layered approach allows the study not just to determine whether the three domains influence teacher performance, but to see how they work together, as reinforcing systems or competing pressures, and why effects may differ across schools. Ethical considerations guide every step of the research process, ensuring voluntary participation, confidentiality, and responsible handling of data. Altogether, the methodology provides a solid, transparent, and human-centred foundation for understanding what strengthens or weakens teacher performance in a developing-country context like Ghana.

4.0 FINDINGS AND DISCUSSION

Results from the study reports the demographic characteristics of respondents, followed by descriptive statistics for the major variables, legal drivers, institutional drivers, technological drivers, and teacher job performance. Inferential analyses, including correlation tests, multiple regression, and mediation/moderation analyses, are also presented. The findings are discussed in relation to the study's conceptual framework and existing literature, highlighting how legal, institutional, and technological factors interact to shape teacher job performance in the Ghanaian context.

4.1 Findings

4.1.1 Demographic characteristics of respondents

A total of 300 questionnaires were retrieved and analysed. Of the respondents, 58 percent were female and 42 percent male, reflecting the general gender distribution in the teaching workforce. Most respondents (65 percent) were between 31 and 45 years old, an age bracket associated with stable professional experience in Ghana's education sector. Teaching experience varied: 40 percent had 6–10 years, 30 percent had 11–15 years, and 18 percent had over 15 years of professional practice. Regarding educational qualification, 62 percent held a Bachelor of Education (B.Ed.), consistent with recent reforms, while 28 percent held a postgraduate diploma or master's degree. These demographics provide a balanced and credible respondent profile for analysing the interplay between legal mandates, institutional conditions, and technological readiness.

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	126	42.0
	Female	174	58.0
Age Range	21–30 years	45	15.0
	31–45 years	195	65.0
	Above 45 years	60	20.0
Teaching Experience	1–5 years	36	12.0
	6–10 years	120	40.0
	11–15 years	90	30.0
	Above 15 years	54	18.0
Qualification	Diploma in Education	30	10.0
	Bachelor of Education (B.Ed.)	186	62.0
	Postgraduate Diploma	30	10.0
	Master's Degree	54	18.0
School Level	Basic School	180	60.0
	Senior High School	120	40.0

4.1.2 Descriptive statistics of key study variables

Table 2 presents the descriptive statistics for the four major constructs investigated in this study, all measured on a five-point Likert scale. The results show meaningful differences in how respondents perceive the legal, institutional, and technological conditions surrounding their work, as well as how they assess their own performance.

Table 2: Descriptive Statistics of Study Variables

Variable	Mean (M)	Standard Deviation (SD)	Interpretation
Legal Drivers	3.71	0.64	Moderate to high agreement
Institutional Drivers	3.56	0.71	Moderate institutional support
Technological Drivers	3.39	0.78	Relatively low but improving readiness
Teacher Job Performance	3.82	0.59	High self-reported performance

Legal drivers recorded a mean score of 3.71 (SD = 0.64), indicating that most teachers recognise the influence of national teaching standards and recent reforms on their professional expectations. Institutional drivers followed with a mean of 3.56 (SD = 0.71), suggesting a moderately favourable but uneven experience of leadership, supervision, and resource availability across schools, with urban settings showing relatively stronger support. Technological drivers yielded a lower mean of 3.39 (SD = 0.78), reflecting ongoing disparities in EMIS utilisation, ICT competence, and digital infrastructure, which remain less developed compared to legal and institutional domains.

Teacher job performance recorded the highest mean at 3.82 (SD = 0.59), showing that respondents generally perceive themselves as performing well in areas such as instructional delivery, classroom management, and professional conduct, though some acknowledged challenges associated with technology-supported teaching. These descriptive findings align with national trends reported in recent research, which highlight similar variations in institutional strength and technological readiness across Ghana's education system (Teye, 2024; Abdul-Rahman et al., 2025).

4.1.3 Correlation Analysis

Correlation analysis provides an initial understanding of how legal, institutional, and technological drivers relate to teacher job performance before moving into more complex predictive models. The results are summarised in Table 3.

Table 3: Correlation Matrix for Key Study Variables

Variables	Teacher Performance	p-value
Legal Drivers	r = .42	p < .001
Institutional Drivers	r = .57	p < .001
Technological Drivers	r = .49	p < .001

The correlation results indicate that all three independent variables, legal drivers, institutional drivers, and technological drivers, demonstrate positive and statistically significant relationships with teacher job performance.
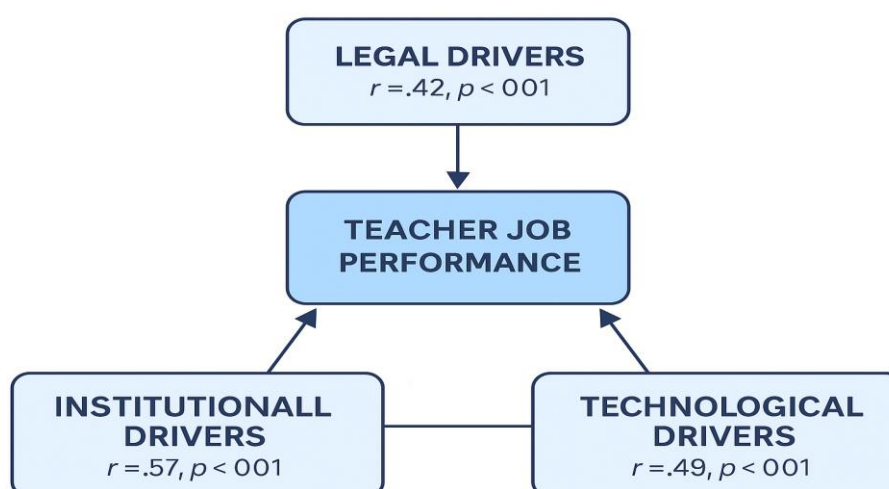

Figure 2: Correlation Matrix for Key Study Variables

Legal drivers showed a moderate positive association (r = .42), suggesting that teachers who are more aware of regulatory frameworks such as the National Teachers' Standards tend to perform better. Technological drivers also produced a moderately strong correlation (r = .49), indicating that greater digital competence and access to functional ICT tools contribute meaningfully to improved performance.

Institutional drivers exhibited the strongest correlation with teacher performance (r = .57), highlighting the central role of leadership, supervision, school culture, and resource support in shaping teachers' day-to-day behaviour and effectiveness. This outcome reinforces earlier research by Amoah et al. (2025), who argue that teacher motivation, agency, and institutional support structures are critical for fostering professional excellence. Together, these findings suggest that while legal and technological systems influence performance, the institutional environment remains the most decisive factor in the performance landscape of Ghanaian schools.

4.1.4 Regression Analysis

To examine the extent to which legal, institutional, and technological drivers predict teacher job performance, a multiple regression analysis was conducted. This analysis allowed the study to determine the unique and combined contributions of the three independent variables to variations in teacher performance.

Table 4: Multiple Regression Results Predicting Teacher Job Performance

Predictor Variables	Standardised Beta (β)	p-value
Legal Drivers	.18	.004
Institutional Drivers	.41	< .001
Technological Drivers	.27	< .001
Model Statistics		
R^2	.52	
F (3, 296)	108.47	< .001

The regression model was statistically significant, $F_{(3, 296)} = 108.47$, $p < .001$, explaining 52 percent of the variance in teacher job performance ($R^2 = .52$). This indicates that legal, institutional, and technological drivers together provide a strong predictive framework for understanding variations in teacher performance within Ghanaian schools.

Institutional drivers emerged as the strongest predictor ($\beta = .41$, $p < .001$), underscoring the critical role of leadership, supervision, resource availability, and school culture in shaping teachers' daily behaviour and professional output. This finding reinforces the argument that even when policy expectations are clear, the institutional environment remains the decisive force in determining how teachers perform.

Technological drivers also had a meaningful and statistically significant influence on performance ($\beta = .27$, $p < .001$). This suggests that digital tools, such as EMIS and ICT resources, enhance performance when teachers possess the necessary competencies and schools provide adequate infrastructure. The growing relevance of technology in shaping professional practices aligns with current trends in educational management.

Legal drivers, while significant, had the smallest effect among the predictors ($\beta = .18$, $p = .004$). This implies that although regulatory frameworks such as the National Teachers' Standards help establish professional expectations, their impact on actual performance depends heavily on institutional support systems and technology readiness.
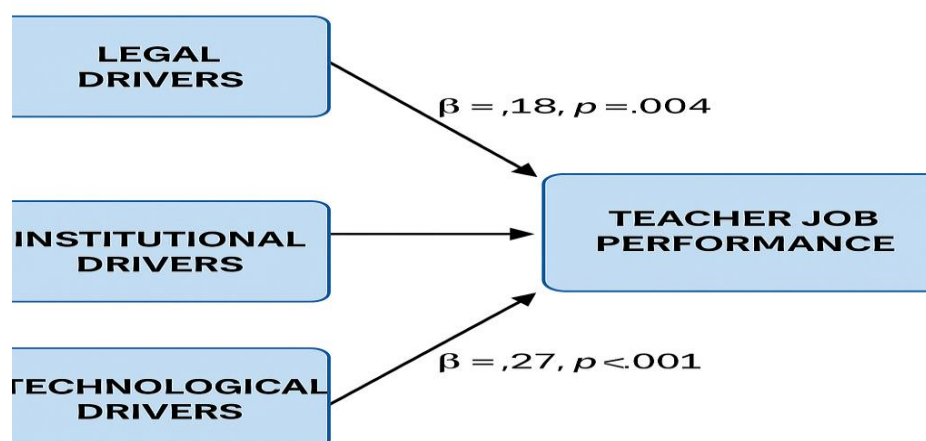
Figure 3: Regression Results Predicting Teacher Job Performance

Overall, the regression analysis confirms that teacher job performance is best understood through the combined effects of legal clarity, institutional strength, and technological capacity. These findings provide strong empirical support for the conceptual framework guiding the study.

4.1.5 Mediation Analysis

Using PROCESS Macro Model 4, the analysis examined whether the effect of legal frameworks on performance occurs directly or partly through the institutional conditions within which teachers work. The results are summarised in Table 5.

Table 5: Mediation Analysis of Institutional Drivers Between Legal Drivers and Teacher Job Performance

Pathway	Coefficient (β)	p-value
Legal Drivers → Institutional Drivers	.38	< .001
Institutional Drivers → Teacher Job Performance	.55	< .001
Indirect Effect (Legal → Institutional → Performance)	**.21**	**< .01**
Direct Effect (Legal → Performance)	.18	.004
Mediation Type	**Partial Mediation**	—

The mediation results show a significant indirect effect ($\beta = .21$, $p < .01$), demonstrating that institutional drivers partially mediate the relationship between legal drivers and teacher job performance. This means that teachers who are aware of professional standards, regulations, and reforms tend to perform better when their institutional environments actively support those standards through strong leadership, clear supervision, and a positive school culture.

The presence of partial mediation indicates that legal frameworks influence performance both directly and indirectly. While teachers who understand and internalise regulatory expectations show improved professionalism, the impact becomes stronger when schools reinforce these expectations through supportive institutional practices. These findings affirm the broader argument that laws alone do not meaningfully alter behaviour; instead, institutions translate policy into practice and give life to regulatory expectations. In simple terms, legal clarity sets the target, but institutional strength determines whether teachers can realistically hit it.
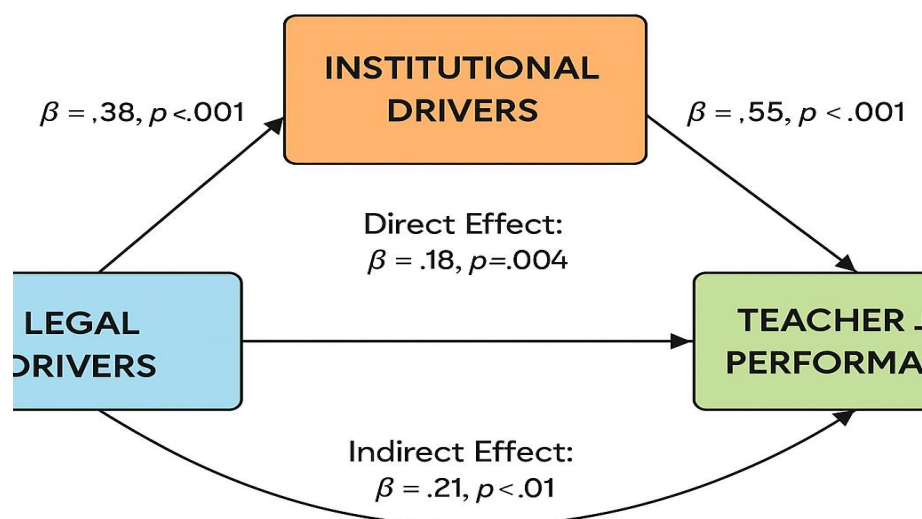
Figure 4: Mediation Analysis of Institutional Drivers

This result aligns with earlier literature (Amoah et al., 2025; Ministry of Education, 2019), which emphasises that teacher effectiveness is significantly shaped by organisational culture, supervision quality, and resource support at the school level. The mediation outcome therefore strengthens the conceptual position that enhancing teacher performance in Ghana requires not only strong regulatory frameworks but also robust, well-functioning institutions that make compliance possible and meaningful.

4.1.6 Moderation Analysis
Using PROCESS Macro Model 1, the analysis assessed whether the effect of institutional support, such as leadership, supervision, and school culture, on performance depends on the level of digital capacity available in the school environment. The results are presented in Table 6.

Table 6: Moderation Effect of Technological Readiness on the Relationship Between Institutional Drivers and Teacher Job Performance

Pathway	Coefficient (β)	p-value
Institutional Drivers → Teacher Job Performance	.41	< .001
Technological Readiness → Teacher Job Performance	.27	< .001
Interaction Term (Institutional × Technological Drivers)	.16	< .05
Moderation Effect	**Significant**	—

The moderation analysis revealed a significant interaction effect (β = .16, p < .05), confirming that technological readiness moderates the relationship between institutional drivers and teacher job performance. This means that institutional support, through strong leadership, constructive supervision, a positive school culture, and adequate resource provision, has a greater impact on teacher performance when digital infrastructure and ICT competence are stronger.
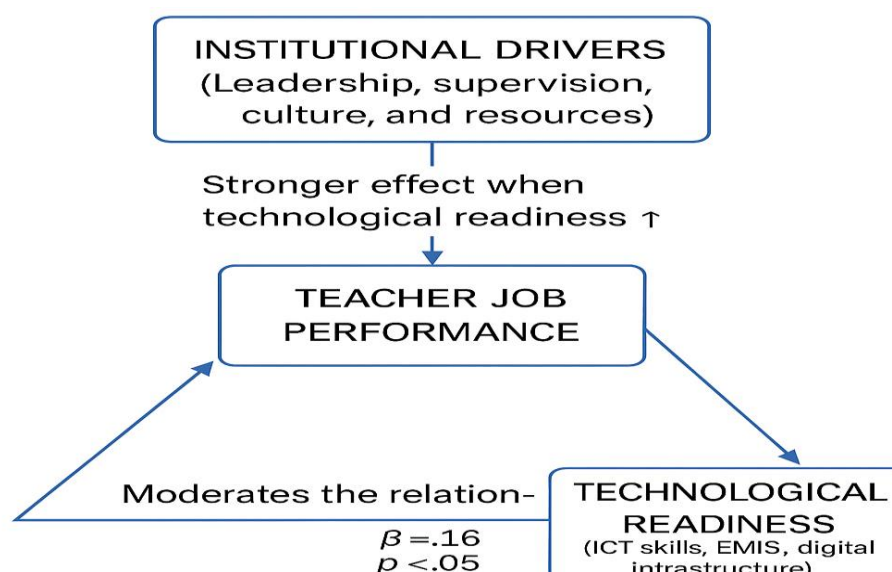
Figure 5: Moderation Effect of Technological Readiness

In schools with high technological readiness, the positive effect of institutional drivers on performance becomes more pronounced. Teachers in these environments not only benefit from supportive leadership and clear supervision but also have the digital tools necessary to enhance lesson delivery, streamline administrative tasks, and improve overall teaching efficiency. Conversely, in schools with low technological readiness, even strong institutional conditions yield comparatively weaker performance gains because teachers lack the digital capacity to complement and extend institutional support.

This finding affirms the shifting realities of twenty-first-century schooling: institutional strength is necessary but not fully sufficient in isolation. Technology acts as a performance multiplier, enabling institutions to operate more effectively and empowering teachers to translate institutional guidance into improved classroom practice. The result reinforces recent observations that digital infrastructure has become an essential component of modern educational management in developing contexts.

4.2 DISCUSSION

The findings align clearly with the hypotheses and affirm that teacher performance in Ghana is shaped by the interaction of legal, institutional, and technological forces.

The first hypothesis, which posited that legal and regulatory frameworks significantly influence teacher job performance, was supported by the results. Legal drivers demonstrated a meaningful predictive effect, confirming that teachers who understand and internalise national standards and reforms tend to exhibit stronger professional behaviour. This reinforces the idea that regulatory clarity helps define expectations and professional boundaries, consistent with earlier scholarship emphasising the importance of a coherent policy environment in guiding teacher professionalism (Akyeampong, 2020; National Teaching Council, 2021).

The second hypothesis, which predicted that institutional drivers would significantly shape teacher performance, received the strongest empirical support. Institutional drivers emerged as the most powerful predictor, demonstrating that leadership quality, supervision practices, organisational culture, and the availability of resources are the real foundations upon which teacher effectiveness is built. This finding mirrors the insights of Amoah et al. (2025), who argue that teacher agency, motivation, and commitment flourish only within supportive institutional systems. In effect, the study confirms that while legal frameworks set the vision, it is schools, through their culture and leadership, that breathe life into that vision.

The third hypothesis, which stated that technological readiness positively influences teacher job performance, was also upheld. Even though technological readiness scored lowest descriptively, it exerted a significant positive impact on performance. More importantly, the moderation hypothesis was confirmed: technological readiness significantly strengthened the relationship between institutional drivers and teacher performance. This means that the benefits of strong leadership, supervision, and school culture become much more pronounced in environments where digital tools are available and effectively used. This aligns with Abdul-Rahman et al. (2025), who demonstrate that systems such as EMIS amplify institutional efficiency by

enhancing monitoring, planning, and instructional delivery.

Taken together, the support for all hypotheses suggests that improving teacher performance requires a systemic and integrated approach. Legal frameworks alone are insufficient without robust institutional structures to translate policy into practice, and both are greatly enhanced by functional technological infrastructure. Where these three domains—legal, institutional, and technological—operate in harmony, teacher effectiveness improves markedly, offering a clear pathway for strengthening educational outcomes across Ghana.

5.0 CONCLUSIONS

The study set out to examine how legal, institutional, and technological drivers shape teacher job performance within Ghana's pre-tertiary education system. The findings demonstrate that teacher performance is not determined by a single influence but is instead the product of a dynamic interaction among regulatory expectations, school-level organizational conditions, and digital capacity. Legal frameworks, particularly those stemming from the National Teachers' Standards and teacher education reforms, clearly guide professional expectations and exert a meaningful influence on teacher behaviour. However, their effect is significantly amplified or constrained by the institutional environments in which teachers work.

Institutional drivers emerged as the strongest predictors of performance, confirming that leadership quality, supervision, organisational culture, and resource availability remain central to how teachers carry out their responsibilities. This underscores the idea that schools are the real theatre of educational reform; without strong institutions, legal frameworks remain aspirational rather than transformative. Technological readiness also proved to be a significant predictor and moderator, revealing that digital systems enhance instructional delivery, accountability, and administrative efficiency when available and properly utilised.

Overall, the study concludes that improving teacher performance in Ghana requires an integrated systems approach. Legal, institutional, and technological domains must be harmonised rather than addressed in isolation. When regulatory clarity meets strong institutional support and is reinforced by functional technology, teacher performance improves meaningfully and sustainably. The findings offer a compelling case for coordinated educational reform that addresses all three domains simultaneously.

6.0 RECOMMENDATIONS

The findings of this study point to the need for a coordinated and integrated effort to strengthen teacher performance across Ghana's education system. A key priority is the more effective operationalisation of legal frameworks such as the National Teachers' Standards and teacher education reforms. These policies are clear and progressive, but they require stronger communication, enforcement, and support mechanisms if they are to shape everyday practice in meaningful ways. Teachers should be provided with ongoing guidance and professional development to ensure that these standards move beyond policy documents and become embedded in professional culture.

Equally important is the need to strengthen institutional capacity at the school level. Leadership quality, supervision, organisational culture, and resource availability emerged as the most powerful determinants of teacher performance. This underscores the value of consistent leadership training for headteachers and supervisors, as well as improved resource allocation and support systems that enable teachers to function effectively. When school environments are strong, teachers are motivated, supported, and able to deliver higher-quality instruction.

The study also highlights the growing importance of technology as a catalyst for improved performance. Expanding digital infrastructure, improving EMIS functionality, and enhancing ICT competence among teachers should become central priorities for government and development partners. Integrating technology into routine school processes, such as supervision, record-keeping, and instructional delivery, will amplify the impact of institutional support and create more efficient and accountable school systems.

Ultimately, these recommendations call for a holistic reform agenda that recognises the interconnected nature of legal clarity, institutional vitality, and technological readiness. Addressing any one of these domains in isolation will produce limited gains. Sustainable improvement in teacher performance will require reforms that align policies with strong institutions and the digital tools needed to support twenty-first-century teaching and learning. Continuous professional development should remain a cornerstone of this process, ensuring that teachers are consistently empowered to meet evolving standards and expectations.

REFERENCES

1. Abdul-Rahman, A., Mohammed, I., & Fuseini, A. (2025). Influence of EMIS training on administrative practices in public senior high schools in Ghana. East African Journal of

Arts and Social Sciences, 8(1), 34–52.

2. Agyei, D., & Voogt, J. (2019). Teachers' use of ICT in teaching and learning in Ghana: Challenges and opportunities. International Journal of Education and Development Using ICT, 15(1), 110–123.

3. Aheto, S. P. K. (2012). Looking through the lenses of educational management: Use of EMIS in Ghana (MPhil thesis). University of Ghana.

4. Ainscow, M., Dyson, A., & Weiner, S. (2013). From exclusion to inclusion: How systems change. International Review of Education, 59(2), 107–119.

5. Akyeampong, K. (2020). Teacher education reforms in Ghana: Policy, practice and challenges. Journal of Education and Practice, 11(2), 45–58.

6. Amenu, A. D. (2022). Headteachers' administrative duties and teacher job performance in public junior high schools in the Agona Swedru Municipality. European Journal of Education Studies, 9(11), 1–20.

7. Amenu, A. D. (2022). Headteachers' administrative duties and teacher job performance in the Agona Swedru Municipality. European Journal of Education Studies, 9(11), 1–20.

8. Amenu, A. D. (2022). Headteachers' administrative duties and teacher job performance. European Journal of Education Studies, 9(11), 1–20.

9. Amoah, S., Ankomah, F., & Owusu, E. (2025). Teacher agency, motivation, and instructional performance in basic schools. Behavioral Sciences, 15(7), 895.

10. Amoah, S., Ankomah, F., & Owusu, E. (2025). Teacher agency, motivation, and instructional performance in basic schools: A structural equation modelling approach. Behavioral Sciences, 15(7), 895.

11. Appiah, J., & Esia-Donkoh, K. (2016). Supervisory styles and teacher performance in Ghana's basic schools. Journal of Education and Practice, 7(18), 95–105.

12. Appiah, J., & Esia-Donkoh, K. (2016). Teacher job performance and headteachers' supervisory styles in Ghanaian basic schools. Journal of Education and Practice, 7(18), 95–105.

13. Asare, M., & Oteng, K. (2025). Digital competence levels among lecturers in Ghanaian universities. Advances in Social Sciences Research Journal, 12(4), 112–128.

14. Boakye-Yiadom, M., Ansah, E., & Otchere, F. (2023). Management and performance in mid-level bureaucracies: Evidence from Ghanaian education districts (DeliverEd Working Paper).

15. Boakye-Yiadom, M., et al. (2023). Management and performance in mid-level bureaucracies: Evidence from Ghanaian education districts (DeliverEd Working Paper).

16. Darling-Hammond, L. (2010). Evaluating teacher effectiveness. Education Policy Analysis Archives, 18(1), 1–36.

17. Darling-Hammond, L. (2010). Evaluating teacher effectiveness: How teacher performance relates to student learning. Education Policy Analysis Archives, 18(1), 1–36.

18. Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on teacher professionalism. Educational Management Administration & Leadership, 44(2), 232–252.

19. Dzidzornu, A. A. K., et al. (2025). Assessing digital literacy competence among student teachers in Ghana. Smart Learning Environments, 12, 89.

20. Gyamfi, S. (2021). Teachers' digital literacy in developing countries: Challenges and prospects. Education and Information Technologies, 26, 4063–4082.

21. Hallinger, P., & Heck, R. H. (2010). Collaborative leadership and school improvement: Understanding the impact on teacher and student outcomes. School Leadership & Management, 30(2), 95–110.

22. Hulpia, H., Devos, G., & Rosseel, Y. (2009). The relationship between school leadership, teacher commitment, and job performance. School Effectiveness and School Improvement, 20(3), 291–317.

23. Kasomah, R., et al. (2025). In-service education and training and teacher performance in Ghanaian senior high schools. Unpublished manuscript.

24. Legede, C. A. (2025). Strengthening the foundation: The role of supervision in improving teaching. Cogent Education, 12(1), 2558378.

25. Legede, C. A. (2025). Strengthening the foundation: The role of supervision. Cogent Education, 12(1), 2558378.

26. Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. School Leadership & Management, 28(1), 27–42.

27. Liebowitz, D. D. (2021). Teacher evaluation for accountability and growth. International Journal of Educational Development, 84, 102438.

28. Liebowitz, D. D., et al. (2019). Teacher accountability and professional growth: Balancing sanctions and support. Educational Evaluation and Policy Analysis,

41(3), 307–331.

29. Ministry of Education. (2019). Education sector performance report.
30. Ministry of Education. (2019). Education sector performance report. Ministry of Education, Ghana.
31. National Teaching Council. (2021). Framework for continuous professional development of teachers. Accra: NTC.
32. National Teaching Council. (2021). National Teachers' Standards for Ghana.
33. National Teaching Council. (2021). National Teachers' Standards for Ghana. Accra: NTC.
34. OECD. (2019). TALIS 2018 Results: Teachers and School Leaders as Lifelong Learners. OECD Publishing.
35. Parcerisa, L., Verger, A., & colleagues. (2025). Making sense of testing: Teachers' interpretations of performance metrics and professionalism. Education Inquiry, 16(1), 2488156.
36. Republic of Ghana. (2020). Education Regulatory Bodies Act, 2020 (Act 1023). Government Printer.
37. Sahlberg, P. (2011). The fourth way of Finland: Professionalism and trust. Journal of Educational Change, 12(2), 173–185.
38. Sahlberg, P. (2011). The fourth way of Finland: Professionalism, trust, and the development of learning. Journal of Educational Change, 12(2), 173–185.
39. Samonova, E. (2025). Local concepts of teacher professionalism in Sierra Leone. European Educational Research Journal, 24(1), 1–19.
40. Sarah, M., & colleagues. (2023). Impact of headteachers' leadership styles on teachers' job performance in Ghanaian junior high schools. Studies in Educational Research, 3(2), 45–63.
41. Sarah, M., & colleagues. (2023). Leadership styles and teacher performance. Studies in Educational Research, 3(2), 45–63.
42. Sarpong, S. A. (2020). Digital reforms and teacher work in Ghana. Ghanaian Journal of Educational Management, 5(1), 13–29.
43. Tan, C. (2019). Teacher professionalism in an era of performativity. Asia Pacific Journal of Education, 39(1), 1–15.
44. Teye, J. (2024). Education and technology in Ghana: Understanding the centrality of digital integration in teaching and learning. Journal of Educational Technology and Society, 27(3), 55–70.
45. Tondeur, J., van Braak, J., Ertmer, P., & Ottenbreit-Leftwich, A. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use. Computers & Education, 108, 1–13.
46. UNESCO. (2017). Global education monitoring report 2017–2018: Accountability in education. UNESCO Publishing.
47. Voisin, A., et al. (2020). How educational systems regulate the teaching profession. Teaching and Teacher Education, 96, 103189.
48. Voogt, J., & Knezek, G. (2018). ICT in teacher education: Research directions. Journal of Computer Assisted Learning, 34(5), 547–552.
49. World Bank. (2023). Resource guide for teacher professional development. World Bank Group.
50. World Bank. (2024). Standing together for teachers: Global insights from education reforms. World Bank Blog.