



How Do Regions, Districts, and Schools Respond to the Introduction of a Delivery Approach? Evidence from Ghana

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DeliverEd Initiative Working Paper

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DeliverEd: Building knowledge on how to use delivery approaches to advance education reforms

The DeliverEd Initiative was launched in 2019 to strengthen the evidence base for how governments can achieve their policy priorities through delivery units and other delivery approaches. Globally, more than 80 countries have used such approaches to achieve better outcomes for policy reform and implementation. Forty-seven percent of those include an education focus, either as a single focus sector or as part of a multisector approach. But there was little empirical evidence, especially from developing countries, on the effectiveness of delivery approaches in delivering education outcomes or on the design choices, contextual features, and enabling factors that contribute to their performance.

DeliverEd has helped to fill this evidence gap and create a better understanding of the practices leaders can adopt to improve their policy delivery and reform efforts. It has conducted research within and across countries on the effectiveness of delivery approaches in improving reform implementation, with the key findings included in this final report. It has facilitated knowledge and experience sharing among countries—for example, through the Africa Policy Forum—to equip policymakers with a deeper understanding of delivery challenges and solutions to make informed decisions. It continues to increase awareness and the uptake of research to improve schooling and learning in low-income countries.

The Education Commission leads DeliverEd with Oxford University's Blavatnik School of Government and funding from the UK Foreign, Commonwealth, and Development Office (FCDO). Other partners include the University of Toronto, the Institute for Educational Planning and Administration (under the Auspices of UNESCO), University of Cape Coast, Ghana, Institute of Development and Economic Alternatives (IDEAS) in Pakistan, World Bank, and Georgetown University in the U.S. For more information about DeliverEd, and to view the country studies and other related research and policy engagement materials, please visit www.educationcommission.org/delivered-initiative.

We are very grateful to the Blavatnik School of Government and all our research partners for their in-depth research, especially during the COVID-19 pandemic. This DeliverEd Final report is the Education Commission's interpretation of the research. For the detailed research papers themselves, please see the next page.

DeliverEd Research Products

Anderson, K., Ibarra, A., & Javaid, N. (December 2022). [The Education Commission. A Case Study of the Sierra Leone Delivery Unit](#). DeliverEd Initiative Policy Note.

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Abstract

In 2018, the Ghana Ministry of Education adopted a delivery approach to deliver on the goals of its new 2018–2030 Education Strategic Plan. The approach was led by the National Education Reform Secretariat (NERS) and led to the implementation of national-level policies and better coordination across Ghana’s 17 national agencies, including the Ghana Education Service (GES). This report is focused on the introduction of a delivery approach at the subnational level by the GES with support from the National Education Reform Secretariat between 2021 and 2022. Drawing primarily on qualitative data collected in May and June 2022 in three regions, five districts, and 10 primary or junior high schools (JHS) across Ghana, the study explores how Ghana’s delivery approach was received by sub-national-level actors and how new management practices interacted with and changed existing management practices and routines. It provides a thick description of the challenges of implementing a delivery approach from the perspective of sub-national actors.

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Introduction

In 2018, the Ghana Ministry of Education adopted a delivery approach to deliver on the goals of its new 2018–2030 Education Strategic Plan. The approach was led by the National Education Reform Secretariat (NERS) and worked to achieve national-level priorities across Ghana’s 17 national agencies, including the Ghana Education Service (GES). In 2021 the GES, with the support of the NERS, introduced a series of management reforms intended to improve the implementation of priority reforms at the sub-national level. These management reforms included the signing of performance contracts at the regional, district, and school levels and the establishment of an “accounting to the GES director-general” forum. In April 2021, the DeliverEd research team, a partnership of Ghana’s University of Cape Coast Institute for Educational Planning and Administration (IEPA), Oxford University, and the University of Toronto, conducted a baseline study of management practices in three regional and five district education directorates. That first qualitative study sought to understand what delivery functions and routines were already in place, at the sub-national level, prior to the rollout of the particular routines of the GES-led delivery approach reform.

This report outlines the findings of a second follow-up round of qualitative data collection at the same sub-national offices and schools that was carried out in May and June 2022. Drawing on approximately 76 interviews at the national level, and interviews in three regions, five districts, and 10 primary or junior high schools (JHS) across Ghana, as well as a policy document review, the research provides a thick description of the ways regional, district, and school staff understood and enacted the delivery approach. The study aimed to explore how Ghana’s delivery approach and attendant routines were received by sub-national-level actors and how these new practices interacted with and changed existing management practices and routines. The study also explored the opportunities and challenges of implementing a delivery approach from the perspective of sub-national actors. This qualitative research was complemented by a large-scale survey of the staff and leaders of districts and schools from May to July 2022 (Leaver, Mansoor, and Boakye-Yiadom 2023). The quantitative study explored the associations among the district office’s use of management practices (captured in a management index of 16 practices that includes, but is not limited to, those in Ghana’s sub-national delivery approach), district performance (inputs and outputs), and school performance (outcomes).

The paper is organized as follows: it begins with an overview of the policy context of Ghana’s education system and an analysis of management practices and routines at the sub-national level, drawing in part on a rapid review exercise, or baseline

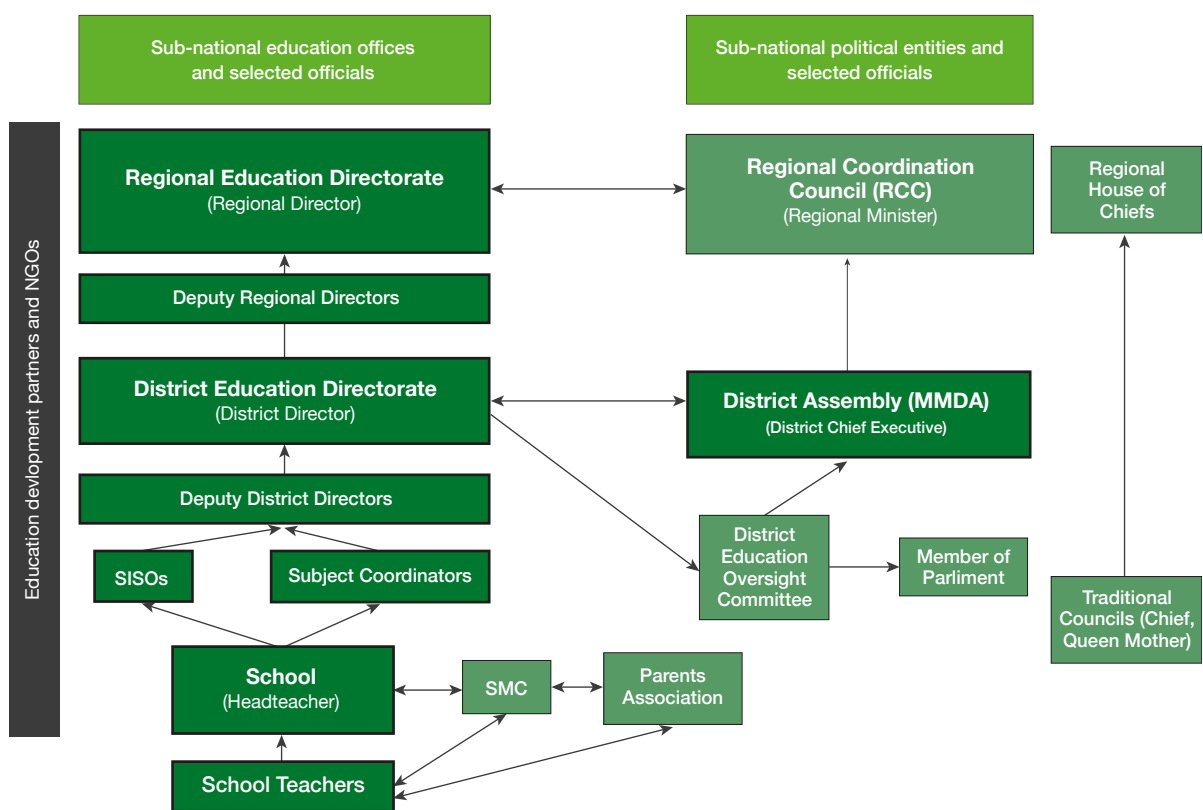
study, that was conducted in April 2021 with five districts. We then outline the study’s conceptual framework and research design. The paper then documents the design of the sub-national delivery approach and explores its implementation at the sub-national level in the study regions and districts. Policy implications are presented in a final section.

Policy context and baseline research

This report draws on two midterm reports on Ghana’s national delivery approach and a sub-national rapid review exercise prepared for the DeliverEd research program. These reports outline the overall institutional and political context in which Ghana’s Ministry of Education’s delivery approach was adopted at the national level (DeliverEd Ghana 2022a; 2022b).

Ghana has a complex governance environment. Figure 1 presents the main institutions and actors involved in education delivery within the GES bureaucracy, the political arena, and the community. Institutions are listed in bold (e.g. regional education directorates), actors in italics (e.g. regional minister), and committees or associations in normal font (e.g. parent teacher associations, or PTAs). Offices led by a director are formally called directorates, but they are more commonly called regional and district offices. For simplicity, the latter term is used in this study. Actors who signed performance contracts as part of the delivery approach are designated with a thick black box outline (this will be further discussed in the Key Findings section). Other institutions and actors include development partners and nongovernmental organizations as well as chiefs and traditional rulers, who operate within traditional councils. Arrows indicate the supervisory or reporting relationships among institutions, actors, and committees.

Figure 1. Key Institutions and Actors in Sub-National Education Delivery



The dark green boxes represent the sub-national institutions and actors which participated in the interviews and focus groups in this study

Notes: Acronyms, left to right: SISOs (school improvement support officers); MMDAs (metropolitan, municipal, and district assemblies); DEOCs (district education oversight committees); MPs (members of Parliament); SMCs (school management committees); PTAs (parent teacher associations). (This figure was adapted from (Ampratwum, Awal, and Oduro 2019)

Sub-national management practices and implementation challenges in 2021

This sub-section presents a high-level summary of the management practices and constraints in the sub-national education system, from the DeliverEd Ghana midterm report. It also features new analysis on the pre-existing performance contracts at the sub-national level. Taken together, this sub-section provides an important description of context and practices prior to the introduction of the delivery approach to the regions, districts, and schools.

Management practices at the sub-national level, prior to the sub-national introduction of the delivery approach

The baseline qualitative research of management practices at sub-national level undertaken in April 2021 found that districts were already using a number of management practices that aligned with a delivery approach. For example, districts

used templates to set key performance indicators (KPIs) and targets that were aligned with the national priorities. The districts listed these KPIs and targets in strategic documents (e.g., annual district education operational plans, or ADEOPs). The districts also accounted for progress toward their targets to actors above them in the administrative hierarchy. The districts were also clear about the lines of reporting. They monitored and supervised the schools, and they innovated and resolved issues through various platforms, such as meetings at the district, circuit, and school levels (for example, school performance appraisal meetings, or SPAMs), based on the resources that were available to them.

Overall, the research found that the district education directorate officials operate in a context characterized by multiple accountabilities: administrative accountability through supervisory relationships (the Ghana Education Service hierarchy) and external accountability to local political and community stakeholders. The latter include district assemblies, members of Parliament, school management committees (SMCs), and parent teacher associations (PTAs). There is, to a certain extent, also professional accountability for these district officials as education professionals.

While districts were held accountable by the bureaucracy for output-focused KPIs (e.g., enrollment), outcomes-focused accountability (e.g., learning outcomes based on the rates of students passing the Basic Education Certificate Examination, or BECE) appeared to come more from the political sphere. Indeed, most actors saw improvements in BECE scores as their ultimate purpose, aligning with the expectations of local political actors. This focus may also be due to the fact that ADEOPs contain a large number of annual targets that made prioritization a challenge for administrative accountability to the GES. The analysis found that performance contracts at the regional, district, and school levels risked creating a process of reporting and accountability that paralleled the processes established by pre-existing strategic documents (i.e., regional and district ADEOPs and school performance improvement plans, or SPIPs).

As part of the recent human resources reforms within the GES, regional and district staff are expected to participate in an annual staff appraisal. There are many similarities with the performance contract process. The GES staff members define individual performance indicators and targets with their supervisors, based on their job schedules (interview, National Agency 9). Staff are then assessed based on their annual performance, which is included in the promotion process. Like the performance contracts, the annual appraisal system is also a paper-based system.

In addition, there were other several performance contracts already in place at the political and school level, prior to the introduction of the delivery approach:

RCCs and MMDAs: First, regional coordinating councils (RCCs) and metropolitan, municipal, and district assemblies (MMDAs), which share some responsibility for education delivery and infrastructure, all sign performance contracts with the higher level of administration within the Ministry of Local Government, Decentralisation and Rural Development (Ghana Ministry of Local Government, Decentralisation and Rural Development 2022).

Senior high school heads: As part of the World Bank-supported Secondary Education Improvement Project (SEIP), the heads of SEIP-supported senior high schools signed annual school performance partnership (SPP) agreements with their district directors, and these agreements were linked to the school performance partnership plans (SPPPs). These partnership agreements listed key activities the school committed to undertake to use the SPPP funds, which were overseen by the district education office, with oversight from the regional education offices. The agreements also listed sanctions for misuse of funding. The Ministry of Education extended this policy to all SHS heads in 2018–19 as part of the Free Senior High School education policy, as part of the 2018–2020 Education Sector Plan (ESP) targets (Ghana Ministry of Education 2018; World Bank 2021)

Basic education school heads: Performance contracts for basic school¹ heads were established in 2020 as part of the World Bank-supported Ghana Accountability for Learning Outcomes Project (GALOP, see Box 1). These contracts are annual, and they are to be completed with the school performance improvement plans (SPIPs). Notably, these contracts are linked to the disbursement of school-level learning grants that support approved activities. Table 6 in the findings section, provides more information on the features of the delivery approach and GALOP performance contract, based on a review of documentation and interviews with national-level staff.

¹ Basic school in Ghana includes schooling from ages 4 to 15 and covers kindergarten, primary school, and junior high school, concluding with the Basic Education Certificate Examination (BECE).

Box 1. Brief Summary of the Ghana Accountability for Learning Outcomes Project (GALOP)

The Ghana Accountability for Learning Outcomes Project (GALOP) (with funding of US\$150 million from the World Bank and an additional \$23.9 million from the Global Partnership for Education) launched in 2019 with the objective to improve the quality of education in 10,000 low-performing basic education schools and strengthen education sector equity and accountability (The World Bank 2019). GALOP is a wide-reaching program that takes up the mantle of many previous reforms. The program has four components: “(a) Strengthen teaching and learning through support and resources for teachers; (b) Strengthen school support, management and resourcing; (c) Strengthen accountability systems for learning; and (d) Institutional strengthening, TA monitoring and research” (The World Bank 2019). With the government launching a new curriculum in 2019/20, GALOP supports in-service teacher training to facilitate the use of the new curriculum as well as the targeted instruction approach, play-based learning and early detection of developmental delays (The World Bank 2019). One sub-component of GALOP focuses on enhancing the role of district management, supervision, and coaching to ensure implementation of the pedagogical approaches.

A second key component of GALOP is an additional grant complementing the existing school capitation grants for schools to strengthen the quality of education. Similar to the grants in the Secondary Education Improvement Project for senior high schools, additional funds (“learning grants”) are given to the 10,000 selected basic education schools, which must complete school performance improvement plans (SPIPs) and report data on a timely basis to the Education Management Information System (EMIS). Head teachers sign annual performance contracts with their district directors as part of the accountability system for the learning grants. For more information on these contracts see Table 6. GALOP includes support for district offices to manage and monitor these grants, as well as support for strengthening school management committees and performance improvement plans.

GALOP also focuses on accountability through a series of management activities to improve the information of the education system. These activities include the harmonization of inspection tools, moving the EMIS to digitized school records, and a learning assessment strategy. Notably, GALOP seeks to strengthen data for decision-makers through the development of an accountability dashboard, which combines multiple sources that have been supported through reforms over the years: the mobile student report card, digitized education management information and human resources systems, school mappings, inspection results, and assessment data (The World Bank 2019). Lastly, GALOP aims to build on Ghana’s 2012 Pre-Tertiary Professional Development Policy. This GALOP policy includes reforms to teacher recruitment, deployment, transfers, and incentives, given the persistent challenges in ensuring that a sufficient number of teachers with the appropriate language skills are allocated to underserved and rural areas. GALOP also includes improving merit-based selection of head teachers.

It is important to note that the DeliverEd research did find evidence of GALOP contracts and learning grants in its sub-national interviews; the research did not directly investigate GALOP implementation. It is therefore not possible, with the data collected, to ascertain the extent and depth of implementation of the GALOP program in the study districts.

Pre-existing constraints to planning and implementation capacity at the sub-national level

The baseline research in April 2021 found that resource challenges at the sub-national level brought about disruptions to daily administrative functions, management, and innovation; these disruptions consequently affected how schools and students performed. At the regional and district levels, incomplete and delayed allocation of the proposed budget affected staff performance. The lack of money for fuel to conduct inspections, insufficient numbers of computers to collect and analyze data, and limited or no resources to reward high-performing districts or schools made the monitoring of KPIs and targets difficult. The scope of problem solving, adaptation, and innovation was equally compromised due to lack of resources. The school performance appraisal meetings, a mechanism to engage education system actors, parents, and local stakeholders to identify and solve problems, took place infrequently or not at all due to the lack of funds. While the lack of funds was a problem across districts, some districts engaged in lobbying for funds to meet their needs more than others.

Unsafe and constrained working environments (the low quality of basic infrastructure in offices and schools) further exacerbated these challenges to education system performance. It is notable that regional and district-level political actors played a small but important role in filling the resource gap for fuel and infrastructure needs (DeliverEd Ghana 2022a).

The baseline research highlighted that the irregularity and inadequacy of funds across the districts studied in Ghana hampered the efforts of mid-level managers (for regions and districts) and frontline workers (head teachers) to plan and implement education reforms. This is an important precondition to the introduction of any performance contract and accountability reform at the sub-national level. In addition, across all districts, staff raised concerns about decentralization not being fully realized, particularly the centralized system of new teacher allocation. Staff described situations where some teachers were assigned to fully staffed schools (while other schools remained short-staffed), and some teachers were assigned to schools where they did not speak the language of instruction. Staff argued this type of issue led to inefficiencies, constraining the district education directorates' (DEDs') ability to allocate teachers to where they were most needed. This phenomenon represents another tension in the potential rollout of sub-national performance contracts, as these issues limit the district's ability to achieve potential targets around improved teaching and learning in schools.

Conceptual framework

This is an exploratory study, organized around qualitative field research in five districts in Ghana. The study aimed to trace policy design and implementation of Ghana’s education delivery approach as it cascaded from the national to the sub-national levels. The study employed a conceptual framework developed by Williams et al. (2021) that identified five key functions common to delivery approaches adopted over the last 20 years: prioritization and target setting; monitoring and use of data; accountability and incentives; problem-solving and adaptation; and political sponsorship (see Table 1). Part of the overall DeliverEd conceptual framework, these functions were identified through an extensive review of the policy and academic literature on implementation and governance, performance management, and public administration (Williams et al. 2021). These functions were not intended to represent the full universe of possible functions a delivery approach could adopt, nor are these functions exclusive to delivery approaches. Instead, they represent core categories of managerial tools and strategies that governments may deploy in implementing policies. The framework allows DeliverEd to use a common vocabulary to understand the design and implementation of delivery approaches across different country contexts.

These functional categories were used first to examine the design features of Ghana’s sub-national delivery approach. Second, the categories were used to identify changes in management practices that resulted from implementation of the delivery approach. The conceptual framework provided an analytical tool to compare how sub-national actors in different regions, districts, and schools interpreted and implemented the different management practices and routines in Ghana’s sub-national delivery approach design.

Table 1. Functions of a Delivery Approach

Delivery Approaches	Functions
Target setting and prioritization	<ul style="list-style-type: none"> • Captures routines around determining policy priorities and measurable indicators to track progress toward stated objectives.
Monitoring and use of data	<ul style="list-style-type: none"> • Comprises the processes around data collection and reporting about performance across the education system at the individual and unit levels. • The type of data that is collected (activity, output, outcome) and how it is shared and used.
Accountability and incentives	<ul style="list-style-type: none"> • Includes the establishment of incentives to guide staff and unit behavior and performance toward desired goals. • Rewards and sanctions, from reputational to financial.

Delivery Approaches	Functions
Problem-solving and adaption	<ul style="list-style-type: none"> • Describes established routines and processes to facilitate discussion, collaboration, and problem-solving across individual staff members within the same department, office, or more broadly with stakeholders. • Includes organizational learning practices whereby policy feedback is fed to higher levels of administration. • Local problem solving where policy is adapted on the ground in a more suitable way.
Leveraging political sponsorship	<ul style="list-style-type: none"> • Encompasses the roles that political actors play in supporting policy planning and implementation processes, whether internally in the civil service or to the broader public.

Source: Adapted from Williams et al. (2021)

Research design

This study adopted a process-tracing qualitative research design that complements prior qualitative research undertaken by the DeliverEd Ghana team. The 2022 DeliverEd midterm reports provided the background of the national-level delivery approach and the baseline management practices that were in place prior to the introduction of the delivery approach to regions, districts, and schools. This study is therefore designed to build on this prior research and focuses on two overarching questions: what delivery approach was introduced at the sub-national level in Ghana’s education system, and how did it compare to the national-level delivery approach that has been in place since 2018? Second, how did the delivery approach change perceptions and practices, if at all? Based on the overall DeliverEd Initiative research questions, more specifically, the study looked at the following:

- *What routines and processes were included in the intended design of the delivery approach to regions, districts, and basic schools?*
- *What delivery approach routines and processes were implemented at the sub-national level?*
- *How are the delivery approach routines and processes (e.g. performance agreements, “accounting to the director-general” forums) perceived by sub-national actors?*
- *How did management practices (around goals, priorities, and targets; measurement and monitoring; accountability; problem-solving) change at the regional, district, and basic school levels as a result of the introduction of the delivery approach routines?*
- *How do these new delivery approach routines and processes fit in with pre-existing routines and practices (such as the preparation of ADEOPs, SPIPs, EMIS reporting, municipal or district education oversight committee (M/DEOC) meetings, monitoring practices, SPAMs)?*

The sections that follow discuss the fieldwork sample, data collection method,

analysis method, and limitations of the study.

Fieldwork site selection

This study is exploratory and focused on the five districts that were originally visited for a rapid review exercise in April 2021 (DeliverEd Ghana 2022a). The study therefore exploited opportunities for a comparison of management practices over time (from 2021 to 2022) and for comparisons among districts and regions. The districts were selected purposefully, but they vary in terms of region, geographic and population size, poverty level, rurality, and learning outcomes at the junior high school level (see Table 2). The research focused on a small number of districts (five out of a possible 261 in the country). Thus, while the design allowed us to examine changes in the particular study offices and schools, these changes may not reflect nationally representative trends.

Table 2. Summary Table of the Operating and Educational Contexts of the District Case Studies

	District A	District B	District C	District D	District E
Area in km²*	450	200	600	300	800
Household population **	160,000	320,000	190,000	160,000	50,000
Population living below the national poverty line (2015) (%)	20	10	35	30	75
Number of schools: kindergarten, primary, and secondary*	400	700	350	500	150
Classrooms needing major repairs: Primary school (%)	20	10	30	20	30
Junior secondary (JHS) (%)	25	10	25	30	25
Kindergarten, primary, JHS public schools: electricity (%)	75	80	50	80	30
Water (%)	85	80	75	70	80
Toilets (%)	95	45	55	80	90
Trained teachers: primary (%)	90	>100	90	>100	85
Basic Education Certificate Exam (BECE) pass rate (%)	60	90	60	55	40

Notes: The single asterisk (*) indicates that the values were rounded to 50 to preserve the anonymity of the districts. Table 2 shows the sum of kindergarten, primary, junior and high schools (kindergarten to junior high levels as they are often housed together in basic education school compounds). The double asterisk (**) indicates that the values were rounded to 10,000 to preserve the anonymity of the districts. All other values were rounded to 5 to preserve the anonymity of the districts. Source: (Ghana Ministry of Education 2022; Ghana Statistical Service 2015; 2021)

Data collection and analysis

The primary data for this report are 69 semi-structured interviews conducted on site by at least two members of the research team with staff in three regional education directorates, five district education directorates, and 10 schools in May and June 2022 (see Table 3). Seven national-level interviews with ministry and agency representatives involved in the sub-national delivery approach were additionally conducted in March 2023 (making up a total of 76 interviews for this study). Interview protocols were developed for each respondent role by the research team based on the research questions (see Appendix A). The interview protocols were piloted in person in a non-fieldwork district office in April 2022 and subsequently revised. The research team also collected and reviewed documents from the sub-national level (including performance contracts at the regional, district, and school levels as well as contract reporting templates and school performance improvement plans), and the national level (including GES performance agreements as well as NERS annual and quarterly reporting on sub-national activities) for triangulation of interview data. The team also took photographs of facilities and posters (with permission from the director or head teacher), recorded notes after each day of fieldwork, and held recorded debriefing discussions in the field after each district’s interviews were complete.

Within each of the districts, the researchers conducted interviews with the following education stakeholders: regional directors, regional deputy directors (with focus groups), district directors, deputy district directors (with focus groups), school improvement support officers (with focus groups), subject coordinators, district assembly officials, head teachers, and teachers (with focus groups). The schools sampled included primary and junior high schools but not senior high schools, because the primary and junior high levels are the main responsibility of district education offices, which are the focus of this study. Table 3 presents the number of interviews and focus groups by region, district, and role in 2022 and 2021.

Table 3. Distribution of Sub-National Interviews and Focus Groups Conducted in 2022 and 2021 by Region, District, School, and Role

REGIONAL-LEVEL POLICY ACTORS	NUMBER OF INTERVIEWS BY REGIONS		
	REGION 1	REGION 2	REGION 3
Regional directors	1	1	1
Deputy regional directors (focus group)	1	1	1
<i>Deputy regional director of HR and training (2022)</i>	1	1	1
SUBTOTAL Region in 2022	3	3	3

DISTRICT-LEVEL POLICY ACTORS	NUMBER OF INTERVIEWS BY DISTRICTS				
	A	B	C	D	E
District directors	1	1	1	1	1
Deputy district directors (focus group)	1	1	1	1	1
<i>Deputy district director of HR & training (2022 only)</i>	1	1	1	1	<i>(Not available)</i>
<i>Deputy district director supervision and monitoring (2022 only)</i>	1	1	1	1	1
School improvement support officers (SISOs) (focus group)	1	1	1	1	1
<i>Subject coordinators (members of district teacher support team) (2022 only)</i>	1	1	1	1	1
District assembly education officers	1	1	1	1	1
SCHOOL-LEVEL ACTORS					
Head teachers	2	2	2	2	2
Teachers (focus group)	2	2	2	2	2
SUB TOTAL district and school in 2022	11	11	1	11	10
TOTAL interviews regional to school in 2022	14	14	14	14	13
TOTAL interviews combined 2021 and 2022	24	24	24	24	23

Permission to conduct the research was secured from the Ministry of Education and the Ghana Education Service prior to fieldwork. The research followed standard procedures for the protection of human subjects (University of Toronto Human Research Ethics Board; University of Cape Coast Institutional Review Board, or UCCIRB; University of Oxford Blavatnik School of Government Research Ethics Committee, or DREC). To protect the identity and confidentiality of the interview participants, the research team randomly assigned a unique identifier to anonymize the regional and district offices and schools for this analysis. The codes used to label the sub-national offices and interviewees are: regions (1 through 3); districts (A through E); schools (1 or 2). For national-level interview respondents, we distinguish between the Ministry of Education, national agency, and development partner, and we assign a random number to each individual within these categories.

The interviews were audio-recorded where consent was expressly given, and the transcripts were prepared for analysis by the research team. Audio and transcript files were stored on a password-protected university OneDrive folder, and access was restricted to the research team. Interview transcripts were coded and analyzed for each district according to an analytical matrix. Developed in Microsoft Excel, the

matrix outlined the main themes of the research (changes in management practices; understanding and implementation of the delivery approach functions; and outcomes of delivery approach).

The authors completed one matrix per district, by summarizing relevant data by theme and respondent, separately recording researcher observations, and identifying key quotes for writing. The matrix served as a qualitative research tool to code and aggregate data across themes, roles, and districts, and it also enabled the researchers to note their analysis and questions during this process. An illustrative excerpt from this analytical matrix is presented in Appendix B.

Limitations

The sub-national fieldwork period (May–June 2022) coincided with the end of the first year of the implementation of the delivery approach at the sub-national level (see the timeline in Table 4). It was too early in the implementation process to fully see how the education actors at the national or sub-national levels were monitoring and using the data to modify their actions, or to trace the impacts on educational outputs and outcomes at the school level. However, the NERS and GES reports from the end of 2022 and early 2023, and the follow-up national interviews in March 2023, shed light on implementation after the fieldwork was conducted.

The researchers also encountered challenges in acquiring performance contracts in sub-national offices and schools. Requests were made after the fieldwork to the GES to provide more sample contracts, which were received for one district office that was part of the study (and one district that was not part of the study). As a result, the document review is not based on all performance contracts across the entire regional, district office, and school sample. This limitation mainly affects the review of differences in numerical target setting, as the sub-national contracts used a standard template and had the same KPIs at each level.

Findings from the introduction of the delivery approach (2022–23)

1) *The design of the sub-national delivery approach cascade in Ghana*

This section reviews evidence on the *intended or mandated* design of the delivery approach cascade: its goals and targets, accountability mechanisms, and problem-solving functions.

Overview and timeline

The Ghana Ministry of Education's delivery approach, coordinated by the National Education Reform Secretariat (NERS), focused in its first two years (2019 and 2020) on establishing routines that would improve horizontal accountability and collaboration across its national agencies (DeliverEd Ghana 2022b). From the outset, the policy vision was to cascade these processes to the school level (interviews 3 and 4, Ministry of Education and (Ghana Ministry of Education 2018). In 2020, the GES signed a performance agreement with the Ministry of Education that had six KPIs, of which the fifth sought to "increase the number of cost centre managers signing performance contracts to improve learning outcomes by December 2020" (Ghana Education Service 2020). The specific milestones and targets in the KPI included organizing four management workshops between June and December 2020 for sub-national actors and also preparing performance contracts with regional and district directors in Q2, heads of secondary education improvement project (SEIP) schools in Q3, and heads of basic schools under GALOP in Q4. However, these plans were delayed due to COVID-19 disruptions, and additional time was needed to develop delivery approach routines that would be suited to Ghana's sub-national education system (interview 5, Ministry of Education).

In 2021, Dr. Yaw Osei Adutwum took office as Ghana's new minister of education. The delivery approach rollout to the sub-national level, called by the NERS "Embedding the Delivery Approach," began by including school-level KPIs in the performance agreements of four national agencies (Ghana National Education Reform Secretariat 2021, no. Q9). Of these four agencies, the GES was the main contract holder implicated, as it was responsible for education policy implementation at the sub-national level. Early in the design of the sub-national delivery approach, internal discussion focused on whether it should mirror the national-level approach, with the NERS as the lead coordinating agency, or whether the sub-national approach should be coordinated by the GES (interview 5, Ministry of Education). In June 2021, the NERS conducted fieldwork in a sample of regional and district offices and schools to understand the existing accountability routines and assess the "feasibility of a user-accepted delivery approach in education delivery" at the sub-national level (see Table 4) (Ghana National Education Reform Secretariat 2021, no. Q10). Proposals for a NERS-led cascade design were subsequently discarded, after consultations and feedback indicated that the most effective way to embed these new processes and functions would be through the GES hierarchy. Compared

to the NERS, the GES had greater institutional legitimacy and presence at the sub-national level to implement the management practices of the delivery approach. The GES had an established administrative hierarchy that could be leveraged to monitor and hold contract holders accountable for KPIs and targets.

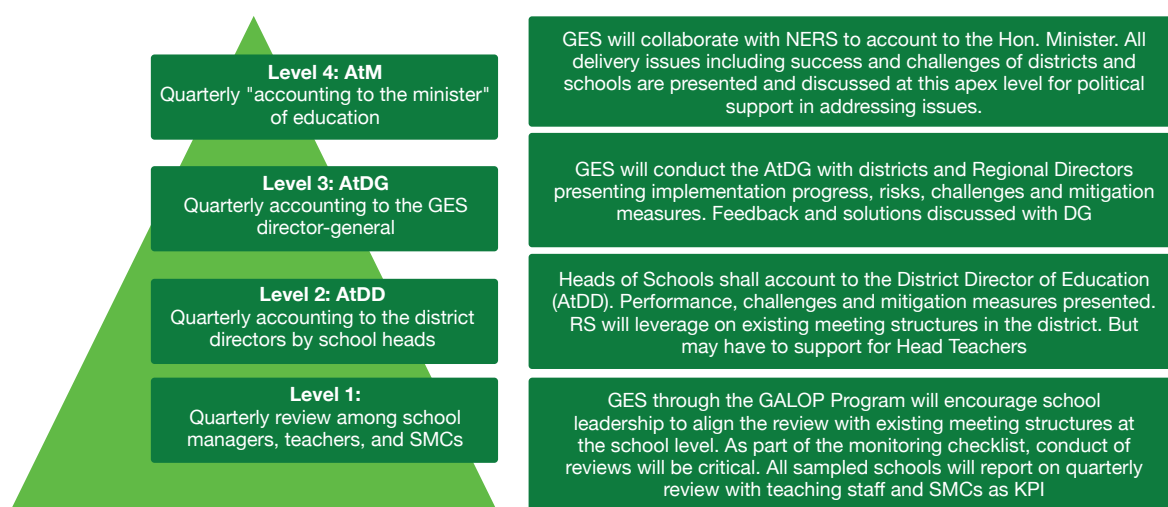
The NERS therefore made support to the GES a main priority, calling it a “must-do agency” in its efforts to support the adoption of delivery approach functions (interview 5, Ministry of Education) (Ghana National Education Reform Secretariat 2020, no. Q9). While the NERS has a clear delivery framework and set of functions at the national level, the GES was encouraged to adapt it to suit the sub-national cascade:

You have to practice what you preach. We are preaching to [the GES] that they should use problem-solving approaches to understand the problem and find solutions to it and should not hesitate to adapt to new ways of doing things... Because the delivery approach is a new concept to all of us, even though aspects of it can be found in what we were already doing... So, if you look at it and it's not working, don't hesitate. Don't be shy to say “no, this is wrong and this one will be better”... So that we can all say even though we all inherited the delivery approach, but we altered it a little to fit our situation. (Interview 5, Ministry of Education)

The agreed-upon policy would mirror the national-level reform process: all regional directors, district directors, and head teachers (from primary school to senior high school) would sign performance contracts with their supervising directors (the GES director-general, regional director, and district director). Each performance contract contained indicators derived from the KPIs in the national GES performance agreement with the minister of education (see Table 5). GES would be responsible for deriving the respective regional, district, and school targets (interview 5, Ministry of Education). Regional targets were developed based on regional population data, baseline performance level, resources, and other variables (interview 5, Ministry of Education). The regional GES offices were then to develop district targets, and the districts were to develop school targets, which could vary based on a similar consideration of educational and contextual variables. The sub-national performance contracts were introduced in parallel to the existing GES staff appraisal system for individual regional and district staff, which as stated in the baseline had many similarities (Interviews: National Agency 9; Ministry of Education 7). According to GES national representatives, the appraisal system had encountered issues in implementation and as a result was largely non-operational at the sub-national level, even up to 2023 (interview, National Agency 9). For example, appraisals tended to only be filled in at promotion time and were not established as an annual target setting process (interview, National Agency 9).

In terms of the accountability design, the NERS initially proposed that the GES replicate quarterly reporting at the national, regional, and district levels, to mirror the national process. Figure 2 depicts this proposed model, where the “accounting to the minister” step at the national level would correspond to the “accounting to the GES director-general” for each region, the “accounting to the district director” for each district, and quarterly reviews among school-level stakeholders. However, as the next section will explain, it appeared that the accountability functions implemented were much less frequent or intense (interview, National Agency 5).

Figure 2. Proposed Accountability Pyramid of the National Education Reform Secretariat



Source: (Ghana National Education Reform Secretariat 2021, no. Q12)

Table 4 presents the timeline of delivery approach activities throughout 2021 and 2022. As we have seen, the first half of 2021 was a period of national-level planning of the sub-national delivery approach, with the arrival of the new minister of education. The DeliverEd fieldwork took place a few months before the first sub-national contracts were signed, in July 2021. Activities around the implementation of the delivery approach (July 2021 onward) are discussed in detail in the next section.

Table 4. Timeline of Key Delivery Approach Activities and Sub-National Fieldwork

Date	Activity	Source	
Jan	2021	Transition to new minister of education; Review and revisit 2021 performance agreements; Discussion of “Embedding the Delivery Approach” rollout with the GES	
Feb	2021		
Mar	2021		
Apr	2021	DeliverEd: Sub-national data collection (Round 1)	
May	2021		
Jun	2021	Signing of the 2021 national performance agreements; NERS sub-national fieldwork on delivery	(Ghana National Education Reform Secretariat 2021, no. Q10)

Jul	2021		GES: Samples of SPIP and performance contract collected in study
Aug	2021	Cascade begins: Regions, districts, and schools sign 2021 performance contracts	(Ghana National Education Reform Secretariat 2021, no. Q11); interviews
Sep	2021	National Education Week (Regions present to GES director-general, ministry)	
Oct	2021		
Nov	2021		
Dec	2021	NERS, GES monitoring of sub-national delivery approach	
Jan	2022	National performance contracts 2022 (GES)	(Ghana National Education Reform Secretariat 2021, no. Q11), interviews
Feb	2022		
Mar	2022		
Apr	2022	Self-evaluations to be completed for 2021 contracts	(My Educeghana Blog 2022)
May	2022	DeliverEd: sub-national data collection (round 2) "accounting to the D-G" forum (in one region) (May 18–19)	Interviews
Jun	2022		
Jul	2022	Regions, districts and schools sign 2022 performance contracts	(AcademicWeek 2022)
Aug	2022		
Sep	2022		
Oct	2022	National Education Week (regions present to GES director-general, ministry)	
Nov	2022	"Accounting to the D-G" forum (in two regions)	Interviews
Dec	2022		

The NERS provided technical assistance to GES headquarters with respect to the standards and approaches for designing data collection tools, verification, and aggregation of indicators (interview 5, Ministry of Education). NERS staffers provided targeted capacity building to GES focal points for the performance contract cascade based on identified gaps, but felt that the skills imparted would be useful more broadly for the large amount of data collected by the GES sub-nationally (interview 5, Ministry of Education). GES headquarters then had responsibility for the rollout of the performance contracts and the required knowledge and capacity to the sub-national level. The trainings and sensitization of the new delivery approach functions were undertaken by the GES at the national and regional levels, with support from the NERS. Regional GES staff then were responsible for providing tailored training to districts, which would then pass along the reform details to the schools. For example, all regional public relations officers (who work directly with regional directors) were trained on the performance contracts in 2021, and they were expected to train their districts (interview 5, Ministry of Education; (Ghana National Education Reform Secretariat 2021)). The NERS was involved in a series of GES-led sub-national trainings for regional and some district statisticians, SISOs, and head teachers on the Comprehensive Data Management System (CDMS) (Ghana National Education

Reform Secretariat 2021, no. Q12; 2022, no. Q14).

Overall, the design of the sub-national delivery approach was a GES-led reform that focused on the rollout of performance contracts at the regional, district, and school levels. The NERS supported the national agency staff and some regional office staff with capacity building. Though there were proposals for quarterly coordination and accountability processes to mirror the national design, the GES-led sub-national cascade did not mandate quarterly reporting or problem-solving routines. With the focus on performance contracting, the next section will examine the policy priorities and management functions embedded into the KPIs at the sub-national level.

National GES delivery approach performance agreement KPIs and alignment with other policies

What formal goals and targets were adopted by the GES for the cascade to the region, district, and school levels? We focus on the 2021 GES national performance agreement, as it is the foundation for the first year of the sub-national delivery approach and for the contracts in place during the April 2022 fieldwork. The GES national performance agreement serves as the guiding document for the sub-national performance contracts, and the 2021 agreement contains 22 leading (output) and seven lagging (outcome) and indicators (see Table 5 below). The terminology of leading and lagging indicators was introduced by Minister Yaw Osei Adutwum (DeliverEd Ghana 2022b). The indicators focus primarily on student-, teacher-, and head teacher-level results, which is a shift from the KPIs in the 2019 GES performance agreement (and to some extent, the 2020 agreement), which was more focused on administrative reforms at the national level (DeliverEd Ghana 2022b). The agreement annex also lists each indicator with a corresponding 2020 baseline (actuals), end 2021 target, and means of verification (not shown in Table 5).

The indicators in the performance agreement emphasize different management functions and practices at the regional, district, and school levels. With respect to accountability and monitoring, the sub-national education offices and schools are tasked with lowering teacher absenteeism and increasing the observation (monitoring) of districts, schools, and classrooms. However, the classroom observations indicators, in particular, state that the head teacher should give feedback, which reflects possibly some problem-solving (feedback loops). Moreover, other key indicators focus on convening school performance appraisal meetings (SPAMs), school management committees (SMCs), and professional learning communities (PLCs), all of which are oriented toward problem-solving, as they bring together stakeholders for discussion.

In contrast to the national delivery approach, which established new coordination and problem-solving functions and routines, the sub-national performance contract KPIs reinforced many existing problem-solving and coordination bodies and practices at the school, cluster, and district levels.

Table 5 shows the linkages between the indicators in the GES performance agreement and other major policy initiatives, namely the 2018–2030 Education Strategic Plan (ESP), GALOP, and SEIP. Alignment with the ESP is seen particularly in the lagging indicators on improving learning outcomes at the primary, junior high school (JHS), and senior high school (SHS) levels. With respect to GALOP and SEIP national KPIs, there are important overlaps, which makes sense, as the sub-national performance contracts that were related to these programs were already implemented prior to the delivery approach (see Policy context and baseline research section). Several leading indicators in the GES performance agreement are the same across SEIP/GALOP (e.g., the percentage of junior high school heads performing classroom observation at least three times weekly and giving feedback). In other cases, the indicators are related but have a different focus or scope. For example, the performance agreement KPI *percentage of primary schools conducting PLC meetings weekly* is a core component of the broader targeted instruction initiative supported by GALOP. Furthermore, the indicator on school-level SPAMs, SMCs, and board meetings to discuss learning outcomes differs in both level and focus from the GALOP indicators in that it focuses on school-level meetings (not cluster SPAMs) and learning outcomes (not the GALOP accountability dashboard). There are some national GALOP KPIs for which the GES is responsible that are not included in their delivery approach performance agreement (e.g. reducing pupil–teacher ratios).

Table 5 also shows that there are several indicators that are not part of GALOP or SEIP and which thus appear to be unique to the delivery approach performance contracts. These are the indicators related to audit queries, guidance counselors, and the monitoring of districts, schools, and teachers by regions, districts, and head teachers, respectively.

Table 5. GES 2021 Performance Agreement Indicators, with Linkages to ESP, GALOP, and SEIP

Lagging (outcome) indicators	Leading (output, or intermediate outcome) indicators	Relevance to GALOP / SEIP indicators
Percentage of WASSCE candidates achieving pass in core subjects <i>(ESP 2018-2030 indicator)</i>	Percentage of SHS teachers demonstrating decreased absenteeism	Related to GALOP indicator on absenteeism (extended to SHS)
	Number of SHS science teachers receiving training in Maths and Science topics for students who perform poorly at WASCCE	SEIP indicator
	Percentage of SHS heads performing classroom observation at least 3 times weekly and giving feedback	Related to GALOP indicator on classroom observation (extended to SHS)
	Percentage of SEIP schools with less than 5% candidates qualifying for tertiary	Related to SEIP
Percentage of BECE candidates achieving pass in core subjects <i>(ESP 2018-2030 indicator)</i>	Percentage of JHS teachers demonstrating decreased absenteeism	GALOP indicator
	Percentage of JHS schools providing intervention programmes to support low performing JHS 3 students	Related to GALOP indicator on targeted instruction
	Percentage of JHS heads performing classroom observation at least 3 times weekly and giving feedback	GALOP indicator
Percentage of P4 learners with proficiency in Maths and English in NSAT <i>(ESP 2018-2030 indicator)</i>	Percentage of primary schools providing intervention programmes to support low performing learners in Maths and English	Related to GALOP indicator on targeted instruction
	Percentage of primary school teachers demonstrating decreased absenteeism	GALOP indicator
	Percentage of primary heads performing classroom observation at least 3 times a week and giving feedback	GALOP indicator
	Percentage of primary schools with library programmes	
	Percentage of primary schools conducting PLC meetings weekly.	Related to GALOP indicator on targeted instruction
Percentage of SHS heads demonstrating effective leadership	Percentage of SHS heads achieving 70% score of their performance contract	
	Percentage of SHS holding at least one board meeting to discuss learning outcomes	
	Percentage of SHS schools with reduced audit queries	
Percentage of basic school heads demonstrating effective leadership	Percentage of basic schools holding at least one SMC meeting/ SPAM to discuss learning outcomes	
Percentage of Regional Directors demonstrating effective leadership	Percentage of districts monitored to support district officers	
	Percentage of SHS monitored to support heads	
	Percentage of Regional Directors achieving 70% score of their performance contract	
Percentage of District Directors demonstrating effective leadership	Percentage of basic schools monitored to support heads	
	Percentage of districts with professional guidance and counselling coordinators	
	Percentage of District Directors achieving 70% score of their performance contract	

Sources: Lagging and leading indicators (Ghana Education Service 2021); GALOP and SEIP information (Ghana Ministry of Education 2014; Ghana Ministry of Education and World Bank 2020).

The comparison between the indicators in the GES national performance agreement and the sub-national performance contracts is discussed in the next section, which focuses on the implementation of the contracts to the sub-national level.

As stated above, the GALOP performance contracts, signed by headteachers of the 10,000 lowest performing schools in the country, were in place prior to the cascade of the delivery approach in 2021. There are some key similarities and differences in the design of these two contracts, in terms of the delivery functions (prioritization, measurement and monitoring, accountability and problem-solving) and resources. Table 6 outlines the main features of both sub-national performance contracts. The contracts at the school level are similar overall, and the delivery approach school-level contract appears to use much of the same language and structure of the GALOP contract template, but the GALOP contract does not have pre-selected key performance indicators. It is instead an annual contract for spending the learning grant funds according to the school’s selected learning activities from a list of approved activity options (Ghana Ministry of Education and World Bank 2020). The GALOP contract is to be completed alongside the pre-existing three-year school performance improvement plans (SPIPs). The SPIPs include a list of over 30 output- and outcome-type indicators, with annual targets, which are mainly used for upward reporting and data aggregation. These data are input into the GALOP accountability dashboard and national-level GALOP project KPIs. However, achievement of the school-level GALOP contract itself for head teachers is based around learning activity completion and grant utilization, not performance on the SPIP indicators or a set of GALOP KPIs.

Table 6. Comparison of Delivery Approach and GALOP Performance Contracts at the Sub-National Level in Ghana

	Delivery approach performance contract	GALOP performance contract
Contract holders	GES director-general; regional directors; district directors; school heads	Basic school head teachers
Content of performance agreement	Signed contract with roles and responsibilities of contract holder. Rewards and sanctions listed (with specific benchmark, such as 70 percent, for performance), and “accounting to the director-general” forum. List of 10 KPIs and specific targets.	Signed contract with roles and responsibilities of school heads, SISOs, and district director. Rewards and sanctions listed for each role, based on good performance (broadly defined). No KPIs listed in the contract. Annex with three-year SPIP, with annex of 21 indicator categories (with disaggregation) and self-determined targets.

Who supervises and monitors performance contract achievement?	Each higher level of the GES administration, through the statistics and monitoring officer, and with implementation supported by the SISO.	District directors provide overall supervision, with SISOs responsible for most monitoring, with other national agencies doing spot checks
Resources provided to support contract?	No. Some training at the regional level.	Yes, learning grants to GALOP schools (base funding and per-capita), funds to all GES levels, including to districts to support GALOP activities.
Duration of contract	1 year, annual	3 years
Activities and indicators	Linked to the GES national-level performance contract.	Linked to the SPIP, which is determined by the school and stakeholders, broad Excel template of outcome and impact indicators (BECE, enrollment rates, etc.). Similar to the ADEOP long list.
Who sets targets	The higher level of administration sets targets with the offices they oversee: regions for districts, districts for schools.	Schools set their own targets with the SISO/district office.

Source: (DeliverEd Ghana 2022b; Ghana Ministry of Education 2014; Ghana Ministry of Education and World Bank 2020) and Interview 5, Ministry of Education.

In sum, the KPIs of the national GES performance agreement, from which the sub-national contracts are derived, was highly aligned to pre-existing policy priorities: the 2018–2030 Education Strategic Plan, GALOP, and SEIP. This section also highlighted the similarities and differences between the delivery approach performance contracts and the pre-existing contracts (GALOP and SEIP). Importantly, the annual GALOP school contracts did not include specific KPIs, but these contracts did come with additional funding (“learning grants”).

2) *Changes in sub-national delivery practices: Comparing evidence from sub-national fieldwork in 2021 and 2022*

This section presents findings from the sub-national fieldwork with respect to the cascade of the delivery approach in 2021–2022 through the GES regional and district offices and primary and junior high schools. The section summarizes how the delivery approach was implemented in the three regions, five districts, and 10 schools visited by the research team and compares what was found in 2022 with what was found in the baseline study conducted in 2021, before the GES’ delivery approach was introduced.² This section is organized by the delivery approach functions: prioritization and target setting; monitoring and use of data; accountability and incentives; problem-solving and adaptation; and political sponsorship ((Williams et al. 2021). For each management function, we discuss new delivery approach routines and how they were enacted. We then explore pre-existing routines that were impacted by the sub-national delivery approach. Lastly, we raise other existing

² This section responds to DeliverEd cross-case research questions 2, 3, and 5.

related routines that were not linked to the introduction of the delivery approach. In the last sub-section, the institutional and political factors shaping implementation of the delivery approach cascade are also summarized.

Prioritization and target setting

2021

In 2021, the NERS, in discussion with the minister of education, developed a document called the Embedded Delivery Approach Concept Note to cascade performance contracts to regional and district directors as well as head teachers. The minister spearheaded the conceptualization of the KPIs into leading (output) and lagging (outcome) indicators in the national-level 2021 performance contracts (2021 GES performance agreement). Of the eight lagging indicators in the performance contract between the GES and the ministry, four indicators reflected the cascade of performance contracting to regional directors and district directors, as well as to senior, secondary, and basic school heads (2021 GES performance agreement). The leading indicators focused on the percentage of heads “demonstrating effective leadership,” which translated to achieving an overall 70 percent score on their agreement, loosely translated to meeting 70 percent of their overall targets.

The initial rollout of the performance contracts to the sub-national level in 2021 was met with resistance from three major teacher unions: the Ghana National Association of Teachers (GNAT), the National Association of Graduate Teachers (NAGRAT), and the Coalition of Concerned Teachers of Ghana (CCT-GH). The unions jointly published a press release in August 2021 arguing that school heads should not sign performance contracts as these contracts had not been discussed with the unions during their development (GNAT, NAGRAT, and CCT-GH 2021). News articles and blog posts discussing the union resistance focused on the fact that the performance contracts were not perceived as clear. The union representatives argued that it was not fair to hold school heads accountable for performance targets when the contracts were not accompanied by the necessary inputs to achieve them, such as training, textbooks, and other teaching and learning materials (My Educeghana Blog 2021).

In baseline qualitative data collection at the sub-national level, in April 2021, we found that the policy had not gained much traction in the field. Though some regional and district staff knew of the delivery approach reform, there seemed to be a lack of clarity among district and school heads as to what constituted a performance contract (Asim et al. Forthcoming). Interviews and document reviews revealed that, of those who said they had signed contracts, they were not well integrated with mainstream reporting

processes, such as the ADEOPs and SPIPs. As noted in Table 4, the first round of fieldwork occurred after the “Embedding the Delivery Approach” policy was agreed upon, but just before the 2021 contracts had been rolled out.

2022 sub-national priorities and targets

In the second round of qualitative data collection, in May–June 2022, we observed that performance contracts were signed by all regional directors, district directors, and school heads in the sample. The basic school head teachers had signed contracts with the district directors, the senior high school (SHS) teachers had signed them with the regional directors, and the district directors had signed them with the regional directors, who in turn had signed contracts with the GES. The reporting went up from the schools to the GES. The preamble of these contracts referred to the contract as an “‘Education Accountability System’ to ensure efficient resource deployment and management of effective pre-tertiary education in the country in order to satisfy the needs and aspirations of all children of school-going age” (District E, director and head teacher performance contract). The district director and head teacher contracts appeared to have been introduced through an in-person orientation; all directors or head teachers set targets and signed these contracts (interview, director of District E). As stated above, the knowledge of district planners of the contracts and data collection varied.

In line with the cascade design described in the previous section, the indicators in these performance contracts cascaded from the GES national performance contract and included both lagging (outcome) and leading (output) indicators. Most interviewees described how the targets for the performance contract were set jointly by the contract holder (e.g. district office) and their supervisory body (e.g. regional office). In some cases, head teachers indicated that the targets were set for them by the district. Overall, the target-setting process was somewhat different from the cascade design described above, in which the higher level determined the targets for their supervisees. The performance contracts did include the same indicators as those at the national GES level (i.e., a combination of lagging and leading indicators). At the director level, the performance contract included a percentage of basic schools holding SMC/SPAM meetings and a school monitoring KPI. The districts were also responsible for several indicators of basic school head teacher performance. These indicators included head teachers providing intervention programs to support underperforming students, monitoring lessons, and also providing feedback on the lessons they observed (2022 District E performance contract). However, in many cases, the performance contracts were not readily available when requested by the researchers during the interview visits with the regional and district directors.

Some schools, such as those visited in District E, did not have a copy of the contract on school premises. Table 6 shows a 2021 head teacher contract in District C that included indicators reflecting many, but not all, of the indicators in the 2021 GES national performance agreement. The targets in the school performance contracts cascaded from the district targets, although they were more specific to the school context. For example, as shown in Table 7 head teachers were required to ensure that a percentage of BECE candidates passed science, English, math, and social studies; learners achieved proficiency in math and English in the National Standards Assessment Test (NSAT), lesson observations and professional learning community meetings were conducted, SPAM and SMC meetings were organized, and a given teacher attendance rate was achieved (District D, head teacher performance contract, July 2022).

Table 7. Sample Delivery Approach Performance Contract for Basic School Head Teacher, 2021

Key performance indicators
52% of BECE candidates achieving pass in Science
47% of BECE candidates achieving pass in English
59% of BECE candidates achieving pass in Mathematics
62% of BECE candidates achieving pass in Social Studies
26% of basic four learners achieving proficiency in Mathematics in NSAT
40% of basic four learners achieving proficiency in English in NSAT
3 lesson observations conducted per week and feedback provided
1 SPAM/SMC meeting organized to discuss improving learning outcomes
80% teacher attendance rate

Source: Head teacher contract, District C. NSAT is the National Standards Assessment Test. Basic four is grade 4 of primary education.

These KPIs were mirrored in the self-assessment template viewed by the research team. The assessment template reflected the same indicators as above: seeing a set percentage of BECE candidates receive passing marks in science, English, math, and social studies, a certain number of lesson observations conducted, a number of SMC and SPAM meetings convened, and a certain teacher attendance rate (District A Performance Contract Self-Assessment Template, July 2021).

Challenges in target setting across districts

The KPIs set forth in these contracts seemed well suited for the reforms being pursued. However, a review of the targets set forth in one district’s performance contracts revealed some errors in target setting. For example, annual targets expressed as a percentage were often broken down into improper quarterly targets, where the percentages

totaled the target share. For example, in the school contracts in District E, the KPI on the teacher attendance rate had an annual target of 100 percent. This was however, divided into a 25 percent attendance rate for each quarter, which clearly would not result in the achievement of the target. This way of dividing up of targets into quarters is more appropriate for targets expressed as whole number, such as the school KPI “number of SPAM/SMC meetings held,” in which the target of eight meetings held could be met by holding two meetings each quarter (District E basic school contract).

This error in target setting also appeared in the district director’s contract, where, for example, the “percentage of Basic Schools monitored to support heads to improve learning outcomes” target was divided into 15 percent (Q1), 15 percent (Q2), 20 percent (Q3) and 20 percent (Q4) (District E performance contract). This structure would suggest that 15 percent of schools would be monitored in Q1, a different 15 percent of schools in Q2, and so on, such that by the end of the year, the target of 70 percent of schools monitored would be met.

With respect to the KPI on school monitoring, the first study of sub-national management practices shows that SISOs visit schools at least once a term (and often much more), and the schools receive visits from other district staff as well throughout the school year (DeliverEd Ghana midterm report). This finding was echoed in the DeliverEd survey, which found that in May–August 2022 close to 100 percent of schools in the sample had received a SISO visit in the previous 12 months (Leaver, Mansoor, and Boakye-Yiadom 2023). Since the norm is already of a greater frequency than the specified target, we therefore suspect this target would not contribute to an increase in monitoring. It is possible that the targets were set without reference to a baseline (setting a “stretch” target). Alternatively, it is possible that the type of monitoring meant to be captured by this indicator is more specific, but that specificity was not described in the contracts themselves or in the interviews with study district and school staff.

Although the targets were supposed to be jointly set between districts and schools, the same target values for the school contract KPIs in Table 7 can also be found in the performance contract templates shared by Ghanaian education news websites (e.g. 52 percent improvement in BECE science scores) (Amofah 2021; Opera News 2021) It could therefore be that the district did not specify unique targets with each school in accordance with the school’s prior performance and the district’s targets.

Alignment with existing planning and accountability reporting documents

We observed overlap and alignment between targets in the ADEOPs and performance contracts at the district level, and school performance improvement plans (SPIPs), GALOP indicators, and performance contracts at the school level. The performance contracts had fewer KPIs than the ADEOPs or SPIPs, and the performance contracts also tended to be more outcome-oriented. Specifically, ADEOPs included multiple output-focused indicators, following directly from the priorities in the Education Sector Plan (improving access, quality, management, technical and vocational education and training (TVET), senior high schools, and special schools), compared to specific, outcomes-focused targets in the district performance contracts (2019–2021 ADEOP for District E). Most regional and district staff did not refer to the GES appraisal system or individual targets when asked about target setting and prioritization (except in Districts A and B).

At the school level, SPIPs focused on outputs, such as improving access through enrollment drives and providing textbooks and other teaching and learning materials. Other outputs included teacher development through in-service education and training (INSET), providing in-kind remuneration at meetings, and school management through updating inventory, providing classroom supplies, and regular and effective SMC meetings (2021 SPIP for District D). We found evidence that all GALOP schools visited in study districts had also signed GALOP performance contracts in addition to the delivery approach performance contracts. (See Table 6 for a summary of the features of the delivery approach and GALOP performance contracts.) The schools selected the activities for their GALOP contracts from a list of approved activities for using the learning grant funds.

Knowledge of targets in the delivery approach reform

There are multiple channels through which sub-national actors set and report on their priorities. As a result, there was variation in the understandings of the performance contracts among the actors we interviewed. Overall, regional and district directors were familiar with the performance contracts and their purpose. On recall, directors stressed that their overall priorities were to improve teaching and learning, raise BECE pass rates, and improve proficiency levels for literacy and numeracy. While BECE performance continued to be an overall priority (in line with the April 2021 fieldwork), deputy directors and SISOs in some districts were able to identify new priorities (sometimes explicitly linked to the performance contracts). These priorities included conducting PLCs (District A), improving reading proficiency (Districts A, B, and D), and reducing teacher absenteeism (District C), suggesting that the actors

had knowledge of the cascade of indicators and targets from the district to the school level.

Most (but not all) of the directors were able to recall at least some of the main targets. When recalling targets from the performance contract, the regional and district staff that were interviewed largely did not see them as misaligned with ADEOP or GALOP priorities. When asked to recall some of the targets in the performance contract, sometimes targets from the ADEOP, GALOP, and the performance contract were confused. In one district (E), the director referred to general improvements in teaching learning, and teacher professionalism as priorities and could not recall the KPIs in the performance contract.

Two regional offices and two district offices had established office-wide communication on the performance contract priorities and targets (Districts A and B; Regions 1 and 3). In these cases, deputy directors could name at least one indicator and target from the district performance contract. In other offices, the performance contracts did not seem to influence the priorities or daily work. In one district (E), although all school heads were asked to sign the performance contract at the district office, none of the district staff and only one of the two school heads could recall any of the KPIs or targets in the performance contract when asked. In general, the head teachers and teachers were less familiar with the KPIs in the performance contracts than the regional or district management, which echoes the findings of the delivery approach multi-agency monitoring visit led by the NERS and GES. Their end-2021 monitoring visits to a large number of districts and schools nationwide also found that knowledge of the indicators was weak at the school level, where most head teachers could not name any KPIs without referencing the contract (NERS 2021 Q12 Report).

Summary of findings on prioritization and target setting

To summarize, we found that the delivery approach introduced new routines around the delivery approach performance contracts, creating another channel of vertical reporting and accountability in the system. We observed alignment in the KPIs in the national GES performance contract and those at the sub-national levels. However, we observed challenges in quarterly target-setting practices in district and school contracts, which may hinder achievement of the KPIs and limit their utility for monitoring at the district, regional, and national levels. There was consistency between the leading targets in the performance contracts and other contracts that the sub-national actors had signed, particularly the ADEOPs. Nonetheless, most actors we interviewed also perceived that there was alignment in the reporting processes,

and many emphasized learning-related goals as their main priorities. This reflects what the NERS and GES found in their own monitoring visits, that the contract KPIs were largely seen by sub-national education actors as relevant to improving learning outcomes (NERS 2021 Q12 Report). However, there was variation among districts in the knowledge of and attitudes toward the performance contracts among the staff. We suspect that the performance contracts helped strengthen prioritization toward achieving the contract KPIs in some districts, in part by defining a more focused set of priorities than was previously set forth in GES plans, such as the ADEOPs. In other districts, there was little change in district priorities as a result of signing the performance contracts, due in part to ineffective communication about the performance contract targets and routines by the district management to its schedule officers and schools.

Monitoring and use of data

As a follow-up from the baseline study of management practices undertaken in April 2021, the research team asked regional and district office staff whether there had been any changes in the past year to the way they monitor activities and collect data in general. In one regional office and two district offices visited, the data collection and monitoring processes for the delivery approach were well understood and implemented. In these offices, the delivery approach performance contracts were also reported to have had noticeable and beneficial impacts on data collection and monitoring activities toward priority reforms.

Staff specifically described how performance contracts motivated a broader change in monitoring and data collection. In one regional office, the introduction of performance contracts was considered the motivating factor in an intensified effort by regional management to visit all districts to discuss the status of education and performance. This effort involved meeting with district office management and conducting joint visits to one senior high school (interviews, regional director, regional deputy directors, Region 1). This region used visits in part to monitor the implementation of two key school-level performance contract KPIs: percentage of senior high schools holding at least one board meeting to discuss learning outcomes and percentage of basic schools holding at least one SMC meeting/SPAM to discuss learning outcomes. The visits also directly contributed to the regional offices' own KPIs on regional leadership (percentage of districts monitored to support district officers and percentage of senior high schools monitored to support heads). One interviewee stated,

Yes, it is the performance contract that made me visit the districts. It is the performance contract that made me impress upon the heads who have a Board of Governors, but are not functioning to immediately do so. For those who do not have, I've given them deadlines, to constitute them...And the SMCs at the basic level too, the same. (Interview, regional director, Region 1)

This regional office also started convening district planning and statistics officers in a new community of practice using a Zoom platform and a WhatsApp group for information sharing and data reporting.

In the office of one district (A), the performance contracts had also influenced monitoring practices by leading to stronger emphasis on the monitoring of professional learning communities (PLCs), another school-level KPI. The director made it a priority to personally visit PLCs in random schools each Wednesday. District directors explained how the GES monitoring templates were used to collect and verify the activity:

Because of the performance contract monitoring form, teachers are supposed to perform certain activities and the school records it. So, we have a professional learning community, where teachers are supposed to do some learning among themselves once a week. They need to report to us the number of teachers that were present, what they discussed and [provide] some reports on the meetings. In the performance contract, you need to indicate to us what you did, and you should also come and show us whatever [evidence] there is [for that]. (Interview, deputy director, District A)

In this same district, the deputy directors were very knowledgeable about specific performance contract indicators and were able to walk interviewers through the self-evaluation template, explaining how each indicator was measured at the school level. They noted that the binary nature of the scoring created some pushback from schools, whereby a school would only receive a 1 (to indicate “completed”) if they had carried out the required number of sessions for the activity and could provide evidence. For example, in this district, the target number of PLCs to be conducted was 12, and only the schools that could show proof of 12 PLC meetings could receive a 1, otherwise the school would receive a 0. This scoring scheme required the district to provide explanation to schools, with guidance needed on what would constitute proof of activity completion (interview, deputy directors for District A). While data collection on contract indicators was the role of district planning and statistics officers, SISOs were expected to understand the performance contract and remind schools of the priority activities during their visits (interview, deputy district directors, District A).

In District B, deputy directors noted that the need for the district to account for contract progress made them gather more data and have it available for use. A deputy director of District B stated in an interview, “I have to generate the report for the director to go and present. Because of this, I always have to make sure that all these key thematic areas, in terms of all information into this, is available...”. The data collection process was also well understood, as the deputy directors reported that it was the planning and statistics officers administering the performance contract data collection questionnaires (and not SISOs).

In other regional and district offices, there was less evidence of changes to monitoring and use of data as a result of the sub-national delivery approach. In Region 2 there was good knowledge of the performance contract indicators, but the lack of resources for regional staff to conduct monitoring activities significantly hindered their ability to visit districts and schools:

“The resources. The resources here are a big challenge... a serious challenge because, we are in the half year and as we speak now, we do not have even one cedis in our accounts... monitoring is zero over 100 because you see, we sit in the office here and some of the things that we do here, you must go to the field to see things for yourself. It is not about what they are reporting to you through the digital system.”

This office found workarounds to undertake monitoring, by organizing the monitoring around proximity to home residences and also using personal funds. However, the staff felt that their ability to monitor the districts (a regional director performance contract KPI) was impeded by a lack of reliable office operational funding.

In Districts C, D, and E, the knowledge of specific performance contract indicators was less robust (as discussed in the prioritization section). This lack of clarity of targets may have led to a less specific data collection and monitoring plan for the performance contracts. For example, in one district (E), staff described the contract monitoring process as a routine matter of completing the new reporting template and submitting it upward. In another district (C), the monitoring and reporting of school implementation of the contracts was seen as part of regular data collection and attributed to SISOs (rather than planning and statistics officers, as in the policy design) and a specific template or questionnaire was not mentioned. In District D, the district deputy directors recognized that the format of the performance contracts for head teachers was similar to the GALOP contracts, though noting that GALOP schools received learning grants and non-GALOP schools did not. However, there seemed to be a lack of clarity on the target setting process (who sets targets and priorities) in the GALOP and delivery approach performance contracts. There was also a sense

that the two contracts were very similar, or interchangeable. One interviewee said,

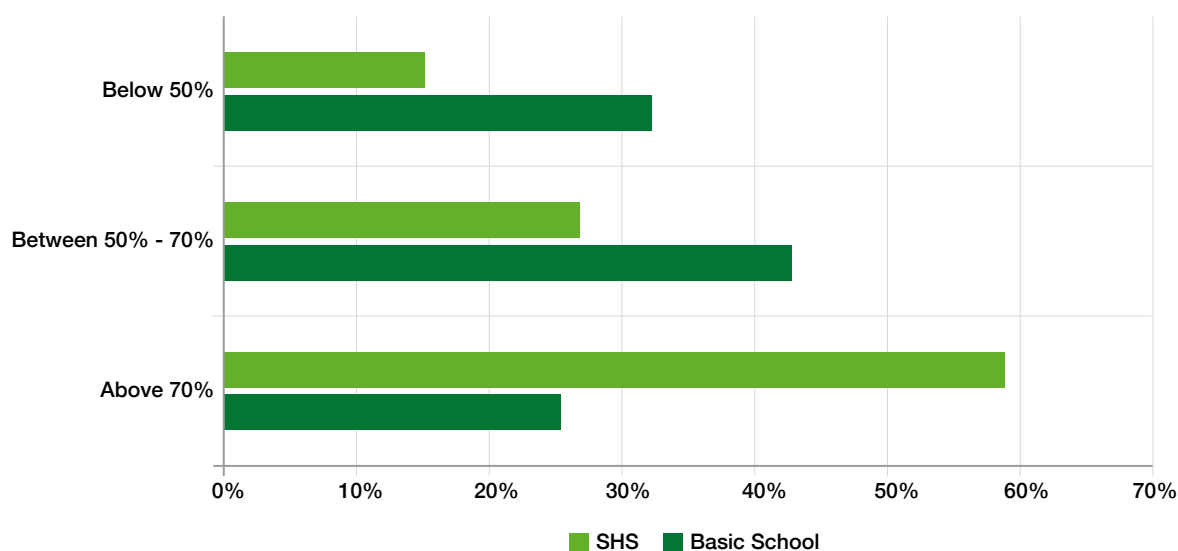
With the GALOP schools, for them, their performance contracts, the areas that they need to work on, it came straight from the headquarters. We have been able to use the same for non-GALOP schools, because we are all in the same [district]. [...] So, they are all having common performance, because whatever we did with the GALOP school heads, it's the same instrument that the non-GALOP people too are also using, so that together we'll be able to achieve our targets. (Interview, deputy director, District D)

As stated in the previous section, although the performance contracts used a similar formatting as the GALOP head teacher contracts, the performance contracts are different in that they outline a set of leading and lagging indicators and targets, which include outcome results. The GALOP contract is more of a school-determined activity plan, with guidelines on suitable activities that the school will undertake to improve learning outcomes using the learning grant. This interpretation may challenge this district's ability to communicate the performance contract process to the head teachers and may hinder their schools' abilities to target and achieve their KPIs. Overall, the existence of multiple performance contracts and more broadly, delivery practices, implemented through various donor-supported programs, could be confusing for district and school actors.

Despite the challenges we observed in the offices we visited, at the national level, the NERS reports show that the GES was able to report on a quarterly basis for most contract KPIs throughout 2022. This indicates that data aggregation was taking place at least quarterly for the NERS to track progress toward the national performance agreement (Ghana National Education Reform Secretariat 2022).

There were also national efforts to monitor the general contract uptake and understanding. At the end of 2021, the NERS, GES, and seven other national agencies (as well as the Ministry of Education's Planning Budgeting Monitoring and Evaluation Unit, PBME) undertook a multi-agency roadmap monitoring visit. Representatives visited 80 senior high schools and 160 basic schools across all 16 regions over two weeks to monitor performance contract achievement and challenges. Figure 3 indicates that more than half of the senior high schools had met above 70 percent of their annual targets at the time of visit, compared to only 25 percent of basic schools. At the time of monitoring, these schools had had their contract in place for around six months. Similar to the research for the DeliverEd sub-national study, the multi-agency monitoring visit also conducted focus group discussions with contract holders to gauge their understandings of and perspectives on the performance contracts.

Figure 3. Performance Contract Achievement Rates, Basic (n=160) and Senior High Schools (n=80)



Source: (Ghana National Education Reform Secretariat 2021, no. Q12)

There were, however, other, broader changes in data collection and monitoring practices beyond the performance contract noted by sub-national office staff. Several districts and two regional offices remarked that the overall efficiency of data collection and use had improved over the last year with a recent shift to more digital means: email and WhatsApp communications, and soft-copy templates for data collection (Districts A, C, and D; Regions 1 and 2). These shifts toward more electronic communication are in part due to reforms on the mobile student report card (MSRC) and digitization of the education management information system (EMIS) in Region 2. The changes in data collection and monitoring practices may also link to the NERS and GES capacity building efforts on the CDMS with sub-national staff mentioned earlier. This capacity building may be potentially beneficial for performance contract monitoring as well. The remaining two districts (C and E) and regional office did not note any particular change to the data collection practices overall between 2021 and 2022. However, the staff in the two remaining districts did note that they had intensified the monitoring activities conducted by SISOs, though not linked to the performance contract.

Overall, we saw that there was variation in how the actors engaged with the monitoring and data collection processes as part of the delivery approach cascade. In some regional and district offices, the cascade introduced new prioritization around monitoring, linked to the specific KPIs on overall monitoring, and the additional monitoring of other KPIs (for example, with professional learning communities). In other districts, the performance contract KPIs did not appear to result in a shift

in the focus of data collection or a change monitoring practices. In other words, monitoring in some regions and districts became more focused, prioritizing the outcome-focused indicators. In other districts, the actors either did not understand the processes or they confused the monitoring of the delivery approach performance contract targets with the monitoring for other accountability contracts (e.g. GALOP) that they had signed.

Accountability and incentives

As stated in the 2022 DeliverEd Ghana national midterm report, the NERS instituted a variety of accountability routines in 2019 at the national level (DeliverEd Ghana 2022b). These routines included performance contracts between the reform owners and the minister; quarterly reports on the performance of reform owners to the NERS; a self-assessment report; “accounting to the minister” meetings; and a biannual independent evaluation of performance agreement performance. The proposed accountability pyramid (Figure 2) represented early thinking into how some of these accountability routines might be cascaded sub-nationally. We found evidence that some of these accountability routines were mirrored in the sub-national offices and schools visited. As discussed above, regional and district directors and head teachers in the sample had signed performance contracts with the director-general of the GES.

Contracts

First, we look at the evidence around the accountability routines that were put in place within the performance contracts themselves. The performance agreements at the national level explicitly state the criteria for rating overall performance, and these agreements also list the rewards for performance and sanctions, referred to as disciplinary action for non-performance. While the performance contracts at the sub-national level were positioned as an initiative to improve “Education System Accountability (ESA)” (District E performance contract), we did not find evidence of these ESA annexures in the performance contracts. The rewards and sanctions are instead mentioned briefly and without the same level of detail on how the contract performance will be assessed. For example, the head teacher’s contract stated that SISOs will monitor and evaluate them “at the end of September and December. Head teachers whose output achievement rates are high will be considered for Merit Awards. Low performance achievers will either be sanctioned or given a remedial support” (head teacher performance contract, District E).

At the time of the fieldwork, we did not find evidence of implementation of these

rewards or sanctions for contract holders by regional or district offices, though this was likely because our visit took place before the first year was complete. However, we did learn how some district staff were thinking of holding schools accountable for contract performance at that time. One district deputy director told the research team that the district had decided not to penalize schools for poor contract performance, as reporting on these indicators was a learning experience (District A). In another district (E), the district director warned schools that low performers may be sanctioned, as their performance impacted the director's contract achievement. However, the later national-level interviews in March 2023 indicated that contract rewards and sanctions were not implemented by the GES nationally for contract holders as a deliberate decision (interview, National Agencies 5 and 9). Without the pressure from the top, it is therefore unlikely that rewards and sanctions were given for contract performance at the sub-national level.

Reporting

Second, the delivery approach drew on existing quarterly activity reporting routines by districts and regions to the GES and introduced an annual self-assessment template. As stated previously, we found evidence of district-level self-assessment reports for performance contract reporting to be shared with actors above in the GES hierarchy (District A template; My Educeghana Blog 2022; interview, deputy director of District C). Information from these existing routines, the new self-assessment reports, and relevant EMIS indicators were aggregated for quarterly and national reporting by the GES to the NERS (Ghana National Education Reform Secretariat 2022). However, unlike for the national delivery approach, we did not find evidence that the GES at the regional or national levels used the data for a KPI traffic light-type tracking system or to rank regions, districts, and schools on their performance.

Accounting forums

Third, like the “accounting to the minister forum” at the national level, the GES held two-day “accounting to the director-general (D-G)” forums in three regions by the end of 2022. The first forum was held in May 2022, as a pilot for the process. Heads of junior and senior high schools that scored a BECE or WASSCE pass rate of five percent or less were to accompany their directors to account to the director-general and regional director, as well as some selected schools that performed at average pass rates (40–50 percent) and some high-performing schools (Ghana National Education Reform Secretariat 2021, no. Q9); interview, Ministry of Education 5). Two subsequent “accounting to the D-G” forums were held in November 2022 in two different regions. Recalling the proposed accountability pyramid design in Figure 2, it appears that the GES organized annual rather than quarterly forums and these forums were held only at the regional level. In the interviews with national officials and sub-national staff in fieldwork sites, we did not find evidence of district or school level forums or reviews to account for performance contract achievement (interview, National Agency 5; Ministry of Education 5; district directors).

National-level education staff who attended these regional forums indicated that the gatherings were intended to mirror some of the routines of the national-level delivery approach. During the forums, head teachers and district directors both presented progress toward achieving the KPIs, using a standard template, to the GES D-G (or his senior representative) and to regional, district, and head teacher participants. These templates required the schools and districts to provide evidence for their reported achievements (pictures, videos, etc.) (interview, National Agency 5). However, the GES did not intend the forums to reward or punish performance. Instead, head teachers and districts were encouraged to share challenges to implementation and innovations as a feedback loop for collective improvement (interview, National Agency 5; Ministry of Education 5). Like the tension experienced in early “accounting to the minister” meetings at the national level, the GES found that initially the school presenters felt uncertain and nervous about the consequences of their performance on the contract:

We have learned some lessons on getting [head teachers presenting at the forum] to relax. Getting them to understand that listen, this is a trial that we’re doing, we’re not here to crucify you that you didn’t do the work... We cannot hold you accountable for all work you were supposed to have done, when we didn’t give you all of the tools necessary to do that [...]. We want to see your innovativeness to be able to still get things done [...]. And I think when that conversation happened, we saw a lot more relaxed environment. (Interview, National Agency 5)

Within the sample of five districts, one district (B) and regional director reported participating in an “accounting to the D-G” forum. In District B, the forum created an accountability mechanism toward improved performance in this district and a way to learn about other ways of working. The director stated,

Previously, in the district office, there was always one method of doing things, and everyone did it the old way, and this one has come to shake all of us. So, everybody is sitting up as they know that there is something they are accounting to, there is a day of reckoning and they will be called to do this, and that and if you sit down, you will be disgraced... (Interview, district director, District B)

Based on this characterization, it appears that the “accounting to the D-G” forum may have still been also perceived as high-stakes for contract holders, despite the intentions of the GES management.

Other existing routines

Along with these new routines established by the delivery approach, we also saw evidence of existing accountability routines serving as a means for head teachers, district directors, and regional directors to be accountable to stakeholders. Actors at the district level said that the SPAMs were used to rank schools based on performance and signal to head teachers if they were performing well or not relative to others in the districts (deputy director, District E; district director, District C). SPAMs were included as KPIs in the 2021 GES performance contracts. In one district (C), the director said that school heads were warned that they would be deposed or removed if they continued to stay at the bottom of the ranking. Similarly, the regional coordinating council meeting was also a forum to rank each district in the region according to its education status and develop an action plan to resolve challenges to service delivery at the district level (regional director, Region 2). In the regional offices, and in some districts, the presentation at the annual National Education Week was an important accountability forum to account to the GES director-general and to Ministry of Education on annual progress.

Finally, we found some evidence of the cascade of contracts to staff within regions, schools, and districts—and not just to directors and head teachers. For example, in one district (A), deputy district directors, SISOs, and classroom teachers had all signed contracts with their superiors. This initiative was not part of the formal requirements of the delivery approach cascade and may reflect the district’s adoption of the GES individual staff appraisal system (interview, National Agency 9). The deputy directors for District A attributed their success of not having a single school scoring

zero percent on the BECE to all of the extra work they had undertaken, including setting targets and reporting. However, this wider use of performance monitoring was not the norm. Within the regions, districts, and schools in the four other cases, individual staff performance was attributed more to fulfilling the broad responsibilities within each job schedule. However, when asked, the staff in these other districts (B, C, D, and E) generally appreciated the idea of a contract between the regional director and their director to hold the district accountable for results, and the staff indicated that the perceived impact was improved teaching and learning.

In summary, we saw evidence of the cascade of delivery approach accountability routines from the national to the sub-national level, mostly in terms of signed contracts by regional and district directors and head teachers and regional accountability forums. In general, sub-national actors found the accountability routines in the contracts to be aligned with existing routines, such as the SPAMs (a contract KPI), the school management committee meetings, and the Board of Governor meetings (contract KPIs), or political forums (e.g. regional coordinating council meetings) where they had to report on their priorities and targets. However, there was variation in how the new accountability routines were embedded across the fieldwork offices and schools. Not all regions and districts have participated in an “accounting to the D-G” forum, which was held once per region, and not cascaded to district and school forums (per the accountability pyramid proposed in Figure 2). Given that the 2021 self-assessment was still in progress during fieldwork, it was too early in the implementation process to observe how the regions, districts, and school heads would be evaluated and in turn rewarded or disciplined for their performance on the contract. However, follow up interviews in March 2023 found that the GES at the national level had not used the contract performance of head teachers, district directors, or regional directors to mete out rewards or sanctions for the 2021 or 2022 contracts (interview, National Agencies 5; 9). We suspect this decision reflected the view that punitive measures would be counterproductive to performance. This may stem in part from two reasons. First, there was a view that there was a learning curve to the new routines the delivery approach put in place. As a result, it was more important to identify and address implementation challenges (interview, National Agency 5; District A deputy director). Second, as we saw in the “accounting to the D-G” sub-national forum, some felt it was not appropriate to discipline districts and schools for not meeting targets in the absence of timely financial resources (interview, National Agency 5).

Problem-solving and adaptation

A key feature of the national-level delivery approach in Ghana was coordination across stakeholders and problem-solving among them to achieve goals that no agency could achieve alone. At the national level, the NERS built the capacity of the reform owners to adopt, adapt, and execute the delivery approach. The NERS also fostered collaboration among reform owners and provided support to them if they were unable to meet their targets and priorities.

Capacity building

Less capacity building, collaboration, and support for contract holders by GES headquarters and the NERS was observed at the sub-national level. Though the national-level performance contract between the ministry and the GES for 2020 included school-level targets, we did not see evidence of the rollout of performance contracts or understanding by the actors of what the performance contracts entailed in the baseline district study conducted in April 2021 (four months before the first sub-national performance contracts were signed). We therefore did not see evidence of widespread sensitization of the sub-national contracts before implementation. Once the contracts were signed, regional offices received support from the GES and NERS on how to report on and achieve their targets in their performance contracts. Specifically, the NERS provided financial assistance to the GES to organize a training at the end of 2022 for regional planning officers and statisticians (two from each region) on performance contract data collection and reporting (NERS Q12 2022 report). The regional officers were expected to train their respective district counterparts. Overall, the cascade of performance contract routines to districts and schools was largely left to individual regions to manage. We did not find evidence of sustained capacity-building at the national or sub-national levels to support the achievement of the regional, district, and school contracts, such as the facilitation of working groups among technical staff (e.g. deputy directors of planning and statistics) to achieve targets.

Deep dives and the Technical Working Group, through which the NERS facilitated different cross-agency discussions to rapidly assess bottlenecks to the achievement of their priorities, were institutionalized as part of the delivery approach at the national level. However, we did not find evidence of regular interagency (or cross-level) discussions on specific performance contract implementation bottlenecks at the sub-national level in contracts or interviews.

The GES did adopt problem-solving routines in the “accounting to the D-G” forums in the three regions at the sub-national level. As stated earlier, the forums were used as a feedback loop for the GES to learn about implementation challenges and for schools and districts to share best practices:

[GES] took feedback in terms of the entire process that they have gone through [...] What were some of the challenges? What was helpful? What was more difficult to be able to do? Or what lessons have [schools or districts] learned from it? What would they do differently if they had to do targets for the following year? (Interview, National Agency 5)

As mentioned in the discussion of accountability, the GES attempted to reduce the fear of sanctions for poor performance from schools and districts asked to account. According to our interviews, this was a lesson from experiences in the national level, where it was felt that these accountability routines were most effectively used as sites for collaboration and problem-solving, rather than high-stakes rewards and sanctions (interview, National Agency 5). As a result, the later forums had a more relaxed atmosphere, which resulted in the sharing of good practices and greater collaboration among district and school staff:

I realized that the first 2 or 3 [presentations] in [the first region forum] were very scripted. Then when we became a lot more relaxed, actually looking out for more positive things that they saw out of the presentation. So we actually got [school] heads, not just taking contacts of each other, but were saying “I’m going to visit your school because you are doing this thing that that is really great. I’m coming to see how it is happening in your school.” So we realized, that environment also created opportunity for them to be networking and to be able to see where they could get additional support among each other. Without the stress of always waiting for the district director or for the headquarters. (Interview, National Agency 5)

Overall, the performance contracts reinforced the forums that already existed for problem-solving as specific KPIs. Indeed, as the first qualitative study of sub-national management practices in 2021 showed, prior to the delivery approach, several problem-solving forums at regional, district, and school levels existed (DeliverEd Ghana, 2022a). These established forums were with teachers (professional learning communities), with the community (SPAMs at the district, circuit, and school levels; PTA and SMC meetings) and with political actors (the regional coordinating councils, district education oversight committees). As seen in Table 5, performance contracts at district and school levels had KPIs on convening professional learning communities and holding SPAMs and SMCs.

From the interviews, it appears that the pre-existing forums, such as the regional council meetings and SPAMs, served as opportunities for both accountability and problem-solving around the delivery approach at the sub-national level. For example,

one regional director said that the meetings with the directors and school heads have provided avenues to acknowledge the efforts of top-performing districts and share best practices with others in the region:

... the number of times we were meeting the heads and the Directors, there have been improvements ... there are no physical rewards. When we meet, those who are doing it well are identified and applauded. They are made to share their good practices with their colleagues and in a way, that also is a way of recognition both for the heads and for the District Directors. We have been meeting and we share, I make them share the good practices. I identify those who are doing things right and they share with their colleagues. (Interview, regional director, Region 1)

Staff at another regional office felt that the performance contract process was helpful as a convening tool. In order to address bottlenecks in advance, this regional office reported:

...this year, we did something different... we grouped the districts and then with the Senior High School heads, the district directors and their heads and we meet them, we proposed the contract to them. That this is the target we are looking to achieve so far. You give them the opportunity to tell us if they will be able to achieve or not. If not why, what caused what went wrong that they could not achieve. It was fantastic for me, if we continue this way, then we will see massive improvement. (Interview, regional deputy director, Region 2)

However, in both rounds of data collection, district and school staff in the selected districts stated that the SPAMs were very useful but infrequent (e.g. not having taken place in the last two years) due to lack of funds (in districts A, D, and E). Indeed, because the performance contracts do not come with any additional budget to achieve the targets, the districts that did not conduct SPAMs previously for this reason are unlikely to be able to achieve this performance contract target.

As stated earlier, one district shifted its focus to convening professional learning communities (PLCs) in part due to the performance contract. PLCs were generally appreciated by the teachers and seen as a tool to improve their knowledge and solve teaching challenges:

Teachers who are not having knowledge in some of the subject areas, they get understanding on that. [...] We interact, we answer questions and, and bring out some of ideas that will help us. (Interview, head teacher, District A)

In other districts however, the implementation of the PLC was less strong.

We also see evidence of actors creating additional avenues for problem-solving, which they did not directly attribute to the performance contract. For example, district directors spoke about looking at data from previous years to identify issues related to low performance and working with SISOs and schools to address those challenges (district director, District C). Similarly, some regional directors had an open-door policy for head teachers to come in and discuss their challenges (regional director, Region 2). At the school level, one head teacher said that including the local chief in the SMC was helpful as they were able to call them in case of a problem and address it during the SMC meetings (head teacher, District B).

To answer the research questions, we saw that the consistent use of problem-solving and coordination routines and practices in the national-level delivery approach led by the NERS was not reflected in the GES headquarters-led sub-national cascade. Unlike at the national level, there was little evidence of ongoing capacity building on the skills needed to develop contract targets or on routines to address challenges in achieving specific KPIs and targets (e.g. deep dives, technical working group meetings). The “accounting to the D-G” forum did evolve into a problem-solving forum by the GES, based on the lessons learned from the national level. Unfortunately, the forums were only rolled out in three regions and were one-off events.

Instead, we find that pre-existing district and school problem-solving routines were built in as explicit KPIs in performance contracts (PLCs, SMCs/SPAMs). We saw no evidence of specific capacity building, or funding from the GES headquarters, to support the implementation of contract KPIs on PLCs, and SMC/SPAMs. There is evidence, however, that where they happened, problem-solving and coordination forums such as the PLCs, SMC meetings, SPAMs, DEOCs, and regional coordinating council meetings served as avenues to resolve bottlenecks in implementation overall. However, in the offices and schools that were studied, these routines were not commonly stated as explicitly undertaken to improve performance contract performance, though some regions and districts improved their PLC or SMC meeting frequency in response to the KPIs. We anticipate that the districts and schools that were not doing this kind of problem-solving prior to the contract’s establishment will need more support be able to undertake them. In terms of developing innovative routines to resolve issues, there was variation across regions and districts. Only some of the districts appeared able to use data systematically to identify and discuss problems.

Institutional and/or political factors (including leveraging political sponsorship)

Institutional and political factors played a role in the implementation of the delivery approach cascade. Political actors, including the ministers of education, played an active role in the adoption and adaptation of the delivery approach at the national level. However, at the sub-national level, the role of political actors was less salient (DeliverEd Ghana. 2022b). In other words, as the delivery approach moved downstream through a complex bureaucracy, we saw that the adoption of routines and practices was removed from the direct political sponsorship of the delivery approach itself. The sub-national delivery approach was embedded within the performance contracts with the GES. This stands in contrast to the NERS, which had the attention and direct support from the political sphere (minister of education). Key sub-national political actors appeared to be unaware of the delivery approach. None of the district assembly representatives in our fieldwork sample knew about the performance contract signed by the director. The representatives were, however, familiar with the performance contract concept, as their district chief executive had signed a contract through the Ministry of Local Government, Decentralisation and Rural Development.

This decision to assign responsibility for the sub-national delivery approach to the GES appeared in this study to have some benefits and limitations. In terms of benefits, the introduction of the performance contract through the traditional GES hierarchy meant that the staff perceived the contracts, their KPIs, and the accountability measures as legitimate. Where the contract was well implemented, the regional and district staff knew and accepted their roles and responsibilities in relation to the contract. There was little evidence of pushback against the performance contracts.

However, the drawback of a GES-led delivery approach cascade was that the knowledge and focus on the delivery approach was “diluted,” because it was no longer being led by a unit singularly focused on this reform. The GES manages numerous priority reforms and processes in its hundreds of districts and tens of thousands of schools, and evidence suggests that the GES did not give the contract holders for this approach the same shepherding and close support as the NERS gave the national agencies. The research identified capacity needs in specific areas, such as target setting, which needed to be met.

The existence of multiple performance contracts did, in some cases, create some confusion among district and school staff. Furthermore, in speaking about the two contracts, district and school staff members said they appreciated that GALOP performance contract activities were linked to GALOP learning grants, which they indicated arrived to schools in a timely and consistent manner. However, this stood in contrast to the delivery approach performance contracts, which were not linked to additional resources (or new efforts to unblock delays in regular operational budget releases) to support the achievement of results (interview, National Agency 5). This shortfall presented a major challenge to the achievement of performance contract targets, especially in those districts and schools that previously struggled to carry out these activities (school monitoring, the conducting of SPAMs) due to resource constraints.

3) *Cases of effective and less effective implementation*

The analysis in the previous section looked at the implementation of the delivery approach cascade by its various functions. However, it is also helpful to consider how the delivery approach manifested in individual districts, comparing how the various routines and practices served to foster effective (or less effective) implementation of the reform. Here we look at two cases, one of more effective implementation and fidelity to the delivery approach and one where implementation was less effective.

Box 2 presents one of the research sample's more effective cases of district delivery approach adoption and operationalization, bringing together the management practices, knowledge, attitudes, behaviors, and early findings on changes in outputs. This case provides insight into how good practices around the district implementation of the delivery approach might look. In contrast, Box 3 describes how the delivery approach made less of an impact in another district visited. From this latter case, when the performance contracts are not well communicated to district staff, and they are not supported to translate the contract into their daily work, it weakens the potential of the contract's priorities to shape district priorities and work well with schools. It is important to note that for context, both districts described below received some financial and capacity-building support from local and international partners and institutions. However, the district with less effective implementation faces much greater operational challenges, notably with regard to its poverty rate and geographic size.

Box 2. District Case of Effective Implementation of the Delivery Approach

Strong knowledge of the delivery approach throughout delivery chain: In this study, the district, district management, and schedule officers (SISOs, subject coordinators) were all aware of and had a clear and consistent understanding of the performance contracts. When asked, staff throughout the hierarchy could recall specific performance contract indicators and targets. In this district, the district staff and school heads could differentiate between school-level GALOP and performance contracts. The two schools visited in this district were aware of the performance contract, and the head teacher could recall the targets and explain how the school was working to meet them.

Regional support: This district was also located in a region with effective regional education directorate implementation of the delivery approach. This regional office had organized monitoring visits to nearly all districts as part of its achievement of its performance contract KPI.

Clear roles and responsibilities in supporting school contract target achievement: In terms of monitoring, the SISOs understood their roles as being to remind and support schools to conduct activities in line with the performance contract targets (PLCs, school head monitoring of teaching). For accountability, the deputy director for supervision could produce the GES KPI monitoring self-assessment templates for performance contract monitoring and explain to researchers how the templates were implemented in their schools, through data collection by the statistics and planning officer. The district's approach to accountability was light on sanctions, focusing instead on improving explanations of appropriate documentation of activities and providing encouragement and support to the schools, as this was the first year of implementation.

Impact on practice: Staff overall viewed the performance contract and its targets as being aligned with the overall priorities set by the district director to improve teaching and learning in the district. Nonetheless, the performance contracts shaped the priority activities of the district and its strategy to improve learning outcomes, notably with an emphasis on supporting and visiting the weekly PLC meetings held at the schools.

Box 3. District Case of Less Effective Implementation of the Delivery Approach

Limited awareness of the performance contracts in districts and schools: Though the performance contracts had been signed at the district and school levels, only the district management was aware of the contract at the district office. The SISOs and subject coordinators were not familiar with the contracts when asked. Instead, there appeared to be confusion with other related initiatives, such as school GALOP contracts and another recent donor-funded accountability initiative. When asked directly, no district staff and only one school staff member in this district could name a KPI or target in the performance contract. Target setting by the district office in the school contracts reviewed showed errors for percentage-based targets (e.g. 100 percent teacher attendance rate divided into four quarterly targets of 25 percent).

More compliance than transformation: While the district with more effective implementation saw the self-assessment template as a chance to build the reporting capacity of the schools and as part of a longer-term improvement in the activities, district statistics staff for the district with less effective implementation saw the template as a GES form to collate indicators from head teachers and forward data up the hierarchy. The school contract signing process was described as a meeting where school heads were invited to the office, given an overview of the contract, and asked to sign. Head teachers were not given a copy of their contract, and they were also not involved in determining school targets.

Sanctions over support: In this district with less effective implementation, there was little evidence of support to schools in the achievement of their targets (especially as the SISOs were not aware). Instead, the schools could be punished. One district staff member said that the director had told them that as (s)he may face sanctions from the regional director for his/her performance contract progress, (s)he said school heads would be sanctioned before that could happen.

Little impact on practice: Given that most staff did not know the performance contract KPIs and targets, it was difficult for them to explain how this reform had shaped their work. Those who knew of the contract said that it had impacted their work, but these interviewees could not provide concrete examples related to the leading or lagging indicators in the contract itself. Staff in this district (and its schools) did engage in activities that aligned with performance contract KPIs (notably, on reducing teacher absenteeism), but this did not appear to be because of the delivery approach.

Conclusions and policy implications

Our first round of fieldwork revealed that sub-national actors in Ghana had adopted and implemented a range of management practices across our framework, but there are variations across regions, districts, and schools. We found that the regions, districts, and schools navigated multiple accountabilities to achieve their outcome-focused priorities, narrowly defined as improvements in BECE pass rates. The

accountabilities navigated included hierarchical (vertical) accountability through supervisory relationships, external accountability to local political and community stakeholders, and professional accountability to peers as education professionals (Asim et al. Forthcoming). We found budgetary constraints and evidence of a service delivery gap, where the resources available were outmatched by the multiple and competing expectations of actors across these accountability relationships. The introduction of the delivery approach performance contracts represents new expectations coming down through the GES hierarchy. However, without additional funds, sub-national directors and school heads face a “service delivery gap” in which they are expected to do “more with the same.” In effect, they were expected to adopt expanded priorities and new management routines with limited resources (Hupe and Buffat 2014). Considering this baseline of sub-national management practices, we approached the second round of fieldwork to understand the cascade of the delivery approach through the lens of the management functions identified in Williams et al. (2021).

Overall, this study found variation in the frequency and intensity with which different delivery approach management functions and routines were implemented across regional and district offices and schools. The complementary large-N survey conducted for a representative sample of districts highlights this variation in accountability and problem-solving-focused practices by various characteristics, including geographical region and socioeconomic status across districts (Leaver, Mansoor, and Boakye-Yiadom 2023). In the case study districts, we found that one key reason for this variation in implementation was district office communication. Consistent communication of the delivery approach targets and routines across the district office hierarchy, and from districts to schools, helped the actors make sense of the reform and integrate it into their daily work. Where there was communication from the district director and management team to staff and schools, the study observed that several management functions (prioritization, monitoring, problem-solving) were shifted in line with the goals of the delivery approach.

The KPIs in the delivery approach performance contracts at the sub-national level were aligned with the national GES performance agreement, which is depicted in Table 6, and other national priorities. Performance contracts narrowed the focus on a select set of outcome and output indicators (compared to the annual district education operational plans, or ADEOPs). However, there was variation in how the contracts shaped prioritization across the districts. Performance contracts helped strengthen prioritization toward delivery approach contract KPIs in some districts, as

actors focused on lagging outcome-focused indicators. In other areas, the priorities of the districts did not change because of the performance contracts. This was due in part to the fact that the performance contracts were not well communicated to the district and school staff. Similarly, monitoring in some regions and districts became more focused and motivated by the performance contract KPIs to increase monitoring in general and/or increase the frequency of particular activities (for example, with professional learning communities). In other districts, the actors either did not understand the processes or confused the monitoring of the performance contract targets with monitoring for other contracts they had signed. Additionally, we found that not all regions or districts participated in the “accounting to the D-G” meetings, and there was little implementation of other accountability routines and practices, such as the rewards and sanctions in the contract, at any level in the GES.

We found that the cascade of the delivery approach sub-nationally created a new channel of vertical reporting in the system, primarily through the institutionalization of performance contracts. This channel ran in parallel to the GES individual staff appraisal system, which was not being implemented consistently, according to national stakeholders (interview, National Agency 9). The delivery approach performance contract that was introduced as part of the ministry’s new delivery approach also co-existed with other subnational performance contracts that the actors had signed (for example, GALOP performance contracts). GALOP basic school performance contracts did not include school-specific KPIs like those signed under the delivery approach. Nonetheless, GALOP represented an additional channel of reporting, as the GES was responsible for achieving specific national GALOP KPIs, which required interventions at the school level. Table 6 shows that there was strong alignment between the national GES performance agreement and the GALOP KPIs, but there were also some differences (for example, the accountability dashboard cluster and school meetings). Overall, the co-existence of multiple contracts (HR appraisal, delivery approach, and GALOP) created confusion, especially for some GALOP school head teachers.

Interestingly, the delivery approach contracts institutionalized specific existing management functions as KPIs (e.g. district and school monitoring, school performance appraisal meetings), as well as mandated contract holders to implement more pedagogical reforms (e.g. interventions for underperforming students). Notably, and unlike the GALOP school contracts, the delivery approach performance contracts signed by regions, districts, and schools did not come with any additional resources. We also did not observe any improvement in the release of regular operational funds in the participating offices and schools in 2022, compared to 2021. This lack of

timely resources hindered the achievement of contract KPIs, as the baseline research indicated that lack of funds was a main reason for poor implementation (e.g. SPAMs, school monitoring).

Finally, the sub-national delivery approach differed in both its design and implementation of accountability and problem-solving routines, compared to the national level (DeliverEd Ghana 2022b). At the sub-national level, emphasis was placed on implementing performance contracts, while institutionalizing new approaches for sub-national accountability and problem-solving were less prevalent. Specifically, it appears that regions, districts, and school heads were not systematically evaluated, and in turn given rewards or sanctions, for their performance on the contract. Some offices participated in the “accounting to the D-G” forums. These forums were not as frequent or as inclusive of all contract holders as similar accountability meetings at the national level. Given the newness of the performance contract reform, and the lack of additional funds to support target achievement, there appeared to be little appetite by the national GES officials to enforce the contract terms with the sub-national actors (interview, National Agencies 5 and 9). Regardless, our interviews did not convey the same sense of urgency that the national-level reporting and accounting routines had, with the reputational consequences created among performance contract holders in different agencies.

There were several initiatives with a problem-solving focus. These included the multi-agency monitoring visit of sub-national offices and schools in late 2021 to understand the implementation challenges of the delivery approach cascade. The GES also used the “accounting to the D-G” forums less as a high-stakes accountability forum and more to understand bottlenecks and good practices related to contract target achievement. However, we found very little evidence of ongoing capacity building on skills needed to implement and achieve the contract KPIs at the sub-national level (e.g. target setting). A key feature of the national approach was the ongoing supportive role of the NERS to address the challenges of the contract holders as they emerged. While the contracts embedded existing routines, such as SPAMs and SMC meetings, as a way to address ongoing implementation challenges, we did not find evidence of institutionalized problem-solving routines, such as deep dives or technical working group meetings, being introduced by the GES.

Overall, then, we find a different theory of change at work for the sub-national delivery approach cascade, as compared to the national approach. The sub-national approach focused on performance contracting as the main tool for change, with a regional “accounting to the D-G” forum. The delivery approach at the sub-national

level re-oriented prioritization and target setting by regions, districts, and schools to a narrower set of results (compared to the standard ADEOPs or SPIPs). The KPIs included changes in both management functions (monitoring, or problem-solving such as school performance appraisal meetings, or SPAMs) which are a means to improve delivery, and the implementation of pedagogical interventions themselves (e.g. interventions for underperforming students). Because of the contract-focused design of the sub-national delivery approach, the communication of these priorities and new practices by the contract holders (regional and district directors and head teachers) to their staff was crucial to implementation effectiveness.

We also saw in the baseline study of management practices, region and district capacity to undertake many of the functions embedded as KPIs were severely curtailed by the lack of funds: school monitoring, SPAMs, even providing rewards for good performance. There is a question then for the future of the cascade reform: without extra support, will prioritization and *some* accountability be enough to change delivery on these KPIs in the regions, districts, and schools that were not previously able to perform these same tasks?

Policy implications and directions for future research

We highlight the policy implications of our work in this section. These implications include ways to potentially improve implementation and impact through greater resourcing, targeted capacity building on management routines and policy priorities, and more opportunities for problem-solving and information sharing within and across levels of the education system.

Provision of resources for contract holders at the regional, district, and school levels, to support the achievement of targets

Overall, we argue that to improve the implementation of contract KPIs, the GES should provide sufficient resources for contract holders at the regional, district, and school levels to support the achievement of the targets. This includes ensuring more timely releases of regional and district operational budgets and school capitation grants. For example, districts often received no operational budget for six months or more, and schools lacked textbooks and other critical teaching and learning materials that would support implementation of the new curriculum. Similar to the GALOP learning grants, providing additional resources for regions, districts, and schools to undertake priority activities could address this key barrier to implementation (such as convening school performance appraisal meetings or professional learning committees, monitoring schools, or providing rewards for good performance).

Strengthening management routines and practices at regional, district, and school levels

Regional, district, and school staff could also benefit from capacity building, and opportunities to share implementation experiences, to strengthen the management routines and activities to support the delivery approach. Within monitoring and use of data, it may be helpful to address appropriate target setting for district and school contracts, especially for KPI targets expressed as a percentage. Targeted training on the use and scoring of performance contract self-assessment templates by regional and district staff could also improve reporting. In addition, opportunities could be created to share good practices in district and school monitoring and provide support between districts and schools. Examples encountered in the research included: joint office staff visits (to use scarce office vehicles more efficiently and provide support on multiple issues) and region- and district-led WhatsApp groups to share information and answer questions on reform implementation between levels and with schools.

Overall we found that implementation of the contract's priority reforms could be facilitated with more training for district staff on the implementation of key pedagogical reforms, including interventions for underperforming students, convening professional learning communities, and addressing teacher absenteeism. In such trainings information could flow in both directions, expanding opportunities for information feedback loops along the delivery chain (between the central and district levels, and between the district and school levels). This could allow for organizational learning around the challenges in implementation of priority activities. There may be benefits from encouraging horizontal problem-solving (e.g., school leaders are encouraged to learn from good practices of others and pilot small changes to remove blockages to existing routines and practices such as professional learning communities and school improvement planning).

Considerations for the delivery approach going forward

Here we propose a few considerations for the future implementation of the sub-national delivery approach. Contract reporting templates could suggest different ways to assess KPI targets to reflect progress toward full target achievement. (For example, if a school convenes 10 of 12 required professional learning communities, it does not receive a 0.) The GES may consider scaling up the “accounting to the D-G” forums to more regions and districts to motivate the reporting of progress at key milestones. The GES could continue the strong problem-solving focus to reflect the national delivery approach model. Relatedly, the sub-national delivery approach may consider establishing a GES-led technical working group of regional office

staff (deputy director of supervision and planning and statistics). As the examples of practice sharing in the “accounting to the D-G” forums show, there is a need and a desire by sub-national staff to coordinate on delivery approach implementation, build regional capacity for district support, and problem-solve issues that arise from schools and districts. Existing meetings of relevant staff could also be used as a way to discuss contract progress and challenges. This would mirror the successful national-level technical working group that has played an important role in addressing implementation challenges (DeliverEd Ghana 2022b).

Avenues for future research

As these reform efforts continue to unfold, there are many important questions for future research on Ghana’s sub-national delivery approach. These questions include: will accountability routines (such as the “accounting to the D-G” forums and the rewards and sanctions listed in the contracts) be fully established sub-nationally, and if so how? With the national delivery approach currently in transition from a standalone unit (the NERS) to one based within the mainstream Ministry of Education, how will the sub-national delivery approach cascade by the GES be affected? How will the performance contracts coexist with the HR appraisal system over time? Given the key differences in their design (target setting, provision of resources, etc.), how will the impact of the GALOP school performance contracts compare to that of the delivery approach contracts? Though these questions are beyond the scope of the current project, they are important issues to consider as the delivery approach reform evolves in Ghana’s education system.

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Appendix A: Interview Protocols

Interview Protocol for Ministry of Education and National Agency management

1. [Design of the cascade]: The sub-national cascade of the delivery approach led by GES included some similar routines to the NERS-led delivery approach, such as annual performance contracts, target-setting, and accounting to the Minister. However, it also differed in important ways. (For example, it did not establish technical working groups, deep-dive sessions or quarterly performance reporting). Can you tell us more about the thinking behind the design for the sub-national cascade of the delivery approach?
2. [Rollout]: How was the delivery approach reform rolled out to the sub-national level? Were trainings organized? Who attended these trainings?
3. [Ongoing support]: How were the various offices and schools supported with implementation of the delivery approach reform?
4. [Targets]: How were the targets set at regional, district and school level? How were these targets shared with GES HQ?
5. [Data and monitoring]: How were data on contract KPI targets collected and monitored at sub-national level? When did that take place?
6. [Performance monitoring]: Can you walk me through how GES at national level monitored sub-national level contract performance? How often were performance data on these targets submitted to GES HQ? How did the GES aggregate and use the performance contract data?
7. [Rewards and sanctions]: We noted that the performance contracts mention some rewards and sanctions for performance (such as Merit Awards or remedial support) Were these adopted? If yes, can you give us some examples?
8. [Accounting to the DG]: We understand that the first “Accounting to the D-G Forum” was held in one region near Accra in the summer last year. Could you tell us more about this event? On what date(s) was it held?

Probe: Who was invited to the event from national, and sub-national levels? Who was asked to account to the D-G?

Probe: How did the accounting take place? Were there any rewards or sanctions for performance?

Probe: Overall, what are your overall impressions about the value of the “Accounting to the Director-General” forum? What are your thoughts on the future, and scale up, of this accountability forum?

9. [Success and failure]: Looking over the first year of implementation of the sub-national delivery approach cascade. What did the reform get right? What could be improved?

10. [Change over time]: How did the sub-national delivery approach reform change in its second year? What motivated these changes? (Ex. content of contracts/KPIs; routines for reporting and accounting for performance)

Interview Protocol for Regional Directors

1. Last year we visited and we learned that some of the key priorities are: girls' education, academic performance, dropout, teenage pregnancy and infrastructure. Have there been any changes in priorities or goals this year, compared to when we last visited?
 - a. [If yes]: What are the new priorities?
 - b. [If yes]: How were they set?
2. Last year when we visited we asked about various management practices in your office. We'd like to ask you now whether there have been any changes in these practices over the past year. This could be, for example, a change in approach (how the office works), in type of activities, or in frequency of activities.
 - a. Has there been any change in how the office collects data, monitors and reports on progress and performance?

[If yes]: Can you describe what has changed? What motivated these changes?
 - b. Has there been any change in how the office holds regional and district staff accountable for performance in the district? (Such as rewards, sanctions, incentives for good work)

[If yes]: Can you describe what has changed? What motivated these changes?
 - c. How the office identifies and addresses challenges and problems in the region?

[If yes]: Can you describe what has changed? What motivated these changes?
3. We understand that the GES has recently put in place a new policy of performance agreements for directors and head teachers. Have you heard of this policy, and if yes, can you tell us what you know about it?
4. Have you signed a performance agreement (contract) with the GES Director General?
 - [If yes]: Can you show us your performance contract?
 - [If yes]: What targets have been set in the performance contract?
 - [If yes]: How were those targets set?
 - [If yes]: How do the targets and expectations set in the performance agreement (contract) compare to the ones you've set in other plans, such as the Regional Operational Plan?
 - [If no]: Why not?

5. As part of this policy, we understand GES has also established an “accounting to the GES Director-General” forum linked to the performance agreements. Can you tell us what you’ve heard about them?

[If yes:] If you’ve participated, can you tell us about the experience?

6. Can you describe the reporting process for the targets in the performance contract to GES?
7. Have the new routines we mentioned (Performance agreements, accounting to the D-G) had any impact on your work within the regional office or with districts and schools over the past year? If yes, how?

[Probe]: What activities have you supported in relation to the performance agreement, over the last year? For example, what have you done in relation to [Target Y], which you mentioned earlier.

[Probe]: Have you had any challenges in meeting the targets in your performance agreement? Can you tell us about that?

Interview Protocol for Deputy Regional Directors (Focus Group)

1. To begin I’d like to ask each of you to state your role here in the regional education office.
2. Last year we visited this office and we learned some of the key priorities are: girls’ education, academic performance, dropout, teenage pregnancy and infrastructure. Have there been any changes in priorities or goals this year, compared to when we last visited?
 - a. [If yes]: What are the new priorities?
 - b. [If yes]: How were they set?
3. Last year when we visited we asked you about various management practices in your office. We’d like to ask you now whether there have been any changes in these practices over the past year. This could be a change in approach (how the office works), in type of activities, or in frequency of activities.
 - a. Has there been any change in how the office collects data, monitors and reports on progress and performance in the region?

[If yes]: Can you describe what has changed? What motivated these changes?
 - b. Has there been any change in how the office holds regional staff and schools accountable for performance in the region?

[If yes]: Can you describe what has changed? What motivated these changes?
 - c. Has there been any change in how the office identifies and solves problems and coordinates with stakeholders in the region?

[If yes]: Can you describe what has changed? What motivated these changes?
4. Next, we wanted to ask about a policy. Last year the Ministry of Education with Ghana

Education Service began a new policy around the signing of performance agreements with regional directors, district directors and Head Teachers. Can you share what you know about this, if you have heard of it?

[Probe, if the Director has signed a performance agreement:] Can you share what you know about the specific targets set for the region in the performance contract?

- a. *[If the Director has signed a performance agreement:]* How have these new routines, that is the performance agreements or accounting to the Director General impacted your work within the region office or with the regional office or schools ?

[Probe:] Were the targets cascaded down into you or your team's responsibilities or targets for the year?

[Probe:] What activities have you supported in relation to the performance agreement, over the last year?

[Probe:] Have you had any challenges in meeting the targets in the Director's performance agreement? Can you tell us about that?

- b. *[If Director has not signed a performance agreement:]* If such performance agreements were in place for regional and region directors and head teachers, what impact do you think it would have? What would be important for such a policy to be effective?

5. We understand that improving school enrollment is a priority. How does the region work to reduce student dropout and support out-of-school children?

[Probe:] Is there a specific strategy or plan in place? What are the main activities the region supports on this issue?

[Probe:] Do you target specific grades, schools, or types of students? Why?

[Probe:] What are the challenges you face in improving school enrollment and reducing dropout?

Interview Protocol for District Directors

1. Last year we visited this office and we learned some of the key priorities were [INSERT PRIORITIES HERE]. Have there been any changes in priorities or goals this year, compared to when we last visited?

a. *[If yes:]* What are the new priorities?

b. *[If yes:]* How were they set?

2. Last year when we visited we asked you about various management practices in your office. We'd like to ask you now whether there have been any changes in these practices over the past year. This could be a change in approach (how the office works), in type of activities, or in frequency of activities.

- a. Has there been any change in how the office collects data, monitors and reports on progress and performance in the district?
 [If yes]: Can you describe what has changed? What motivated these changes?
 - b. Has there been any change in how the office holds district staff and schools accountable for performance in the district? (Such as rewards, sanctions, incentives for good work)
 [If yes]: Can you describe what has changed? What motivated these changes?
 - c. Has there been any change in how the office identifies and solves problems and coordinates with stakeholders in the district?
 [If yes]: Can you describe what has changed? What motivated these changes?
3. We understand that the GES has recently put in place a new policy of performance agreements for directors and head teachers. Have you heard of this policy, and if yes, can you tell us what you know about it?
 4. Have you signed a performance agreement (contract) with the GES Director General?
 [If yes]: Can you show us your performance contract?
 [If yes]: What targets have been set in the performance contract?
 [If yes]: How do the targets and expectations set in the performance agreement (contract) compare to the ones you've set in other plans, such as the Annual District Education Operational Plan (ADEOP)?
 [If no]: Why not?
 5. As part of this policy, we understand GES has also established an "accounting to the GES Director-General" forum linked to the performance agreements. Can you tell us what you've heard about them?
 [If yes:] If you've participated, can you tell us about the experience?
 6. What is the reporting process for the targets in your performance contract?
 7. Have the new routines we mentioned (Performance agreements, accounting to the D-G) had any impact on your work within the regional office or with districts and schools over the past year? If yes, how?
 [Probe]: What activities have you supported in relation to the performance agreement, over the last year? For example, what have you done in relation to [Target Y], which you mentioned earlier.
 [Probe]: Have the new routines we mentioned (Performance agreements, accounting to the D-G) had any impact on your work within the district office or with schools over the past year? If yes, how?
 [Probe]: What activities have you supported in relation to the performance

agreement, over the last year?

[Probe]: Have you had any challenges in meeting the targets in your performance agreement? Can you tell us about that?

Interview Protocol for Deputy District Directors (Focus Group)

1. To begin I'd like each of you to state your role here in the district education office.
2. Last time we visited this district, we learned that the priorities were *[Insert answer from 2021 here]*. Are there any changes to your priorities this year? If so, why?
3. Next, we wanted to ask about a policy. Last year the Ministry of Education with Ghana Education Service began a new policy around the signing of performance agreements with regional directors, district directors and Head Teachers. Can you share what you know about this, if you have heard of it?

[Probe:] Can you share what you know about the specific targets set for the district in the performance contract?

4. How have these new routines, that is the performance agreements or accounting to the Director General impacted your work within the district office or with the regional office or schools ?

[Probe]: Were the targets cascaded down into you or your team's responsibilities or targets for the year?

[Probe]: What activities have you supported in relation to the performance agreement, over the last year?

[Probe]: Have you had any challenges in meeting the targets in the Director's performance agreement? Can you tell us about that?

5. We understand that improving school enrollment is also a priority. How does the district work to reduce student dropout and support out-of-school children?

[Probe]: Is there a specific strategy or plan in place? What are the main activities the district supports on this issue?

[Probe]: Do you target specific grades, schools, or types of students? Why?

[Probe]: What are the challenges you face in improving school enrollment and reducing dropout?

Interview Protocols for Deputy District Director, Supervision & Monitoring, Short Interview

1. First we'd like to ask you a little bit about your team. Could you explain to us the main role of the District Teacher Support Team (DTST)?
2. Who is part of the District Teacher Support Team (DTST) in your district?

[Probe]: What kinds of support to schools do they provide?

[Probe]: How do they work with SISOs and other staff members (Girl's Education

Officer, Special Education officer)?

3. As managers, can you tell me about the various training or professional development that staff in the district education office receive?

[Probe]: Is this training provided as part of a plan or framework?

[Probe]: Who organizes the trainings?

[Probe]: How often do SISOs receive training? Subject coordinators? Deputy District Directors?

[Probe]: Can you tell me some of the main topics that these trainings cover?

4. Is there any training topic on your “wish list”, that is some area of knowledge or skills you would like to improve the capacity in the district office? What is it?

[Probe]: Why do you think it’s important?

6. What about for schools (head teachers and/or teachers): what training topic would be on your ‘wish list’ to improve school performance?

Interview Protocol for Deputy District Director, HR & Training Short Interview

1. Can you tell us briefly about the recruitment process for staff in the district office, such as deputy directors, SISOs and subject coordinators?
2. Are there any current vacancies or unfilled positions in the district education office? Which ones?

[Probe]: For how long have they been unfilled?

[Probe]: Why have they not been filled?

3. Do district staff typically stay in one district, or transfer to other districts or offices? If they transfer, for what reasons?
4. In your role as the Deputy Director for human resources, what challenges have you faced in the line of duty? How have you dealt with them?

Interview Protocol for School Improvement Support Officers (SISOs) (Focus Group)

1. To begin we’d like to get a sense of your portfolio. Could each of you describe your circuit, in terms of how many and what type of schools (primary, JHS/SHS and share of public and private)?

[Probe]: Could you also tell us how long you’ve been a SISO?

2. Could you tell us about how you work with head teachers and teachers to support schools?
3. How do you work with other district staff, such as: subject coordinators, the girls’ coordinator and the special education officer?
4. Last time we visited this district, we learned that the priorities were *[Insert answer from*

2021 here], are there any changes to your priorities this year? If so, why?

5. Last year the Ministry of Education with Ghana Education Service began a new policy around the signing of performance agreements with regional directors, district directors and Head Teachers. It sets out specific targets and priorities for the year, such as SPAMs and a target for school head monitoring by district office. Can you share what you know about this, if you have heard of it?
 - a. *[If Director has signed a performance agreement]*: Have the performance agreements influenced the priorities or the activities you conducted this year? Can you tell us about it?

[Probe, if yes]: Did the district add or expand on any activities to meet the performance agreement targets?

[Probe, if yes]: Did you encounter any challenges in trying to conduct these activities?
 - b. *[If Director has not signed a performance agreement]*: If such performance agreements were in place for regional and district directors and head teachers, what impact do you think it would have? What would be important for such a policy to be effective?

Interview Protocol for Subject Coordinators (Member of District Teacher Support Team)

1. Can you tell us briefly about your duties and role here at the district?

[Probe]: What are the main activities you undertake?

[Probe]: Could you tell us about how you work with other district staff to support schools? That is, other subject coordinators, and with SISOs? What about with the girls' coordinator?
2. How long have you worked as a subject coordinator?

[Probe]: What is your academic/professional background?
3. Can you tell us more about refresher courses you offer to schools and teachers?

[Probe]: How do you identify needs for support?

[Probe]: How do you design the courses? Do you work with others?

[Probe]: How often are they organized, and who attends them?
4. Last year the Ministry of Education with Ghana Education Service began a new policy around the signing of performance agreements with regional directors, district directors and Head Teachers. It sets out specific targets and priorities for the year. Can you share what you know about this, if you have heard of it?

[Probe, if yes]: Has the new performance agreement influenced your work in any way, that is, influenced your priorities or activities?

Interview Protocol for District Assembly Education Officers

1. Let's begin by discussing the Assembly governance. Is the Assembly still led by the same District Chief Executive (DCE) as when we visited in April 2021? If not, when did the new DCE take office?
 - a. What is the professional background of the current District Chief Executive?
 - b. Do you know what professional role the former DCE has now taken up, since the end of his/her tenure as DCE?
2. We understand that the District Assembly has a broad mandate to support a wide range of services and sectors. Education is one of them. Can you tell us a little bit about how the District Assembly attempts to balance these different responsibilities? How is education seen, compared to all the other competing priorities?
 - a. [Probe]: How does this impact the allocation of district assembly resources (budget) (such as the common fund)?
3. Last year we visited you and you mentioned that some of your key priorities in education are [INSERT PRIORITIES HERE]. Have there been any changes in priorities or goals this year, compared to when we last visited? Why?
4. When was the last District Education Oversight Committee meeting? What were the main issues discussed at that meeting?
5. What have been the major activities the Assembly has undertaken in education in the past year?
6. Last year the Ministry of Education with Ghana Education Service began a new policy around the signing of performance agreements with regional directors, district directors and Head Teachers. It sets out specific targets and priorities for the year. Can you share what you know about this, if you have heard of it?

Interview Protocol for Headteachers

1. Last year we visited this school and we learned some of the priorities are [INSERT PRIORITIES HERE]. Have there been any changes in priorities or goals this year, compared to when we last visited?
 - a. [If yes]: What are the new priorities?
 - b. [If yes]: How were they set?
2. Last year when we visited we asked you about various management practices in your school. We'd like to ask you now whether there have been any changes in these practices over the past year. This could be a change in approach (how the office works), in type of activities, or in frequency of activities.
 - a. Has there been any change in how the school collects data, monitors and reports on progress and performance ?

[If yes]: Can you describe what has changed? What motivated these changes?

- b. Has there been any change in how the school holds teachers accountable for performance?

[If yes]: Can you describe what has changed? What motivated these changes?

- c. Has there been any change in how the school identifies and solves problems and coordinates with stakeholders?

[If yes]: Can you describe what has changed? What motivated these changes?

3. We understand that the GES has recently put in place a new policy of performance agreements for directors and head teachers. Have you heard of this policy, and if yes, can you tell us what you know about it? It is different than the GALLOP contract.

4. Have you signed a performance agreement (contract) with the GES Director General?

[If yes]: Can you show us your performance contract?

[If yes]: What targets have been set in the performance contract?

[If yes]: What was the process when you signed this contract with the district? That is, how did the district introduce you to the contract and explain it to you when signing?

[If yes]: How do the targets and expectations set in the performance agreement (contract) compare to the ones you've set in other plans, such as the GALLOP?

[If no]: Why not?

5. As part of this policy, we understand GES has also established an "accounting to the GES Director-General" forum linked to the performance agreements. Can you tell us what you've heard about them?

6. What is the reporting process for the targets in your performance contract?

7. Has the performance contract had any impact on your work within the school, or with the district education office? If yes, how?

[Probe]: What activities have you led over the past year to meet the targets in the performance contract?

[Probe]: Have you had any challenges in meeting the targets in the performance contract?

Interview Protocol for Teachers (Focus Group)

1. To begin we'd like to get a sense of your teaching background. Could each of you state what grades/classes or subjects you teach and for how long you've been a teacher?
2. Thank you. Next, we'd like to ask you about a GES policy. Last year the Ministry of Education with Ghana Education Service began a new policy around the signing of performance agreements with regional directors, district directors and Head Teachers. It sets out specific targets and priorities for the year, such as SPAMs and a target for school head monitoring by district office. Can you share what you know about this, if you have heard of it?
3. Next we will ask about working with the district office. Can you tell us about the kind of engagement you have with SISOs and subject coordinators? What kind of support do they provide?
 - [Probe]: How often do SISOs visit your school? What do they usually do during their visit?
 - [Probe]: What activities do you find the most helpful to your work?
 - [Probe:] Are there other ways they could support your work?
4. What kinds of INSET or training have you taken part in, over the past few years?
 - [Probe]: What was the topic?
 - [Probe]: What was the methodology of the training? That is, lectures or presentations, hands-on activities, practical application?
5. If you could receive training in any topic (knowledge or skill) to improve your work as a teacher, what would be most helpful?

Appendix B: Analytical Matrix Template

Below is an excerpt of the analytical matrix for two sub-themes used in the analysis of this study. Researchers completed the summary of transcribed interview data by role, researcher reflections, key quotes, and integrated data from documents.

District A

Theme	Sub-theme	Summary of data by role	Researcher analysis / reflections	Key quotes (indicate source)	Triangulation from documents
	<i>Understanding of performance contract policy</i>	Regional director: Regional frontliners: District director: Deputy district directors: SISO: School heads: Teachers:			
	<i>Knowledge of specific indicators and targets in performance contract</i>	Regional director: Regional frontliners: District director: Deputy district directors: SISO: School heads: Teachers:			

Appendix C: Table of Acronyms

Acronym	Definition
ADEOP	Annual District Education Operational Plan
AtDD	Accounting to the district directors
AtDG	Accounting to the (Ghana Education Service) director-general
AtM	Accounting to the minister (of education)
BECE	Basic Education Certificate Examination
CDMS	Comprehensive Data Management System
DED	District education directorate
DEOC	District Education Oversight Committee
D-G	Director-general
DTST	District teacher support team
EMIS	Education Management Information System
ESA	Education System Accountability
ESP	Education Sector Plan
GALOP	Ghana Accountability for Learning Outcomes Project
GES	Ghana Education Service
IEPA	Institute for Educational Planning and Administration (University of Cape Coast)
INSET	In-service education and training (for teachers)
JHS	Junior high school
KPI	Key performance indicator
MEOC	Municipal education oversight committee
MMDA	Metropolitan, Municipal, and District Assembly
MP	Member of Parliament
MSRC	Mobile student report card
NaCCA	National Council for Curriculum and Assessment
NaSIA	National Schools Inspectorate Authority
NERS	National Education Reform Secretariat
NSAT	National Standards Assessment Test
NTC	National Teaching Council
PBME	Planning Budgeting Monitoring and Evaluation
PLC	Professional Learning Community
PTA	Parent Teacher Association
RCC	Regional Coordination Council
RS	Reform Secretariat (NERS)
SEIP	Secondary Education Improvement Project
SHS	Senior high school
SISO	School improvement support officer
SMC	School Management Committee
SPAM	School Performance Appraisal Meeting
SPIP	School Performance Improvement Plan
SPPP	School performance partnership plan
TVET	Technical vocational education and training
WASSCE	West African Senior School Certificate Examination