

Basic Instinct: How middle-tier bureaucrats implement learning reforms

Abhinav Ghosh

Harvard University

Abstract

Within recent efforts to address a “global learning crisis”, middle-tier bureaucrats – subnational actors linking policy with schools – are seen as key agents for improving education quality. Yet little is known about how these actors interpret and implement learning reforms. This paper examines how middle-tier bureaucrats in two Indian states enacted the NIPUN Bharat Mission, the country’s flagship FLN initiative. Drawing on interviews and field observations with 25 bureaucrats, it applies a cognitive lens to analyze how their sensemaking of the policy shaped implementation. Although motivated by reform goals, bureaucrats interpreted the policy through limited pedagogical knowledge, compliance-driven norms, and output-oriented signals. As a result, they transformed their complex instructional support tasks into codifiable routines. The study argues that bureaucratic sensemaking, rather than institutional norms alone, mediates how ambitious learning reforms translate into practice.

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Estimates indicate that despite improved school enrollment in low- and middle-income countries (LMICs), most children lack basic literacy and numeracy skills (World Bank 2022). Concerns about this ‘global learning crisis’ have prompted international organizations and donors to coalesce around an agenda of prioritizing foundational literacy and numeracy (FLN) – understood as children’s ability to read simple texts and perform basic arithmetic calculations (Evans and Hares 2021; Beeharry 2021). Efforts to improve FLN outcomes in LMICs today include the scaling up of evidence-based interventions, like Teaching at the Right Level (Banerjee et al. 2017) or structured pedagogy (Piper et al. 2018), as well as focused governance through monitoring and accountability.

Even though the effectiveness of policies and programs depends on how implementing actors make sense of, contest, and appropriate them (Levinson and Sutton 2001), we know little about these implementation processes for FLN reforms in LMICs. More so, the roles of *middle-tier*

bureaucrats in implementing education policies in such contexts remains systematically underexamined (Asim et al. 2023). Amid the ongoing encouragement of decentralized governance in education systems globally, these subnational actors – at regional, district, or local levels – are key links between the state and schools, who shape reform implementation through their administrative, monitoring, and supervisory roles (Childress et al., 2020). With respect to FLN initiatives, they have been increasingly tasked with instructional support (Tournier et al. 2025).

This paper explores: *how do middle-tier bureaucrats interpret and implement learning reforms?* It examines this question in the context of one of the world’s largest FLN initiatives – the NIPUN Bharat Mission – launched in 2021 in India. Recent studies of bureaucratic capacity in education in LMICs adopt an institutional lens to argue that policy delivery by middle-tier actors is shaped by their organizational norms, cultures, and structures (Mangla 2022; Aiyar 2024; Asim et al. 2024). Yet this lens doesn’t fully account for how individual knowledge, beliefs, social relations, or policies themselves might influence middle-tier effectiveness. To illuminate these aspects, I use a cognitive lens (Spillane et al. 2002) in this paper, which enriches existing institutional explanations by illustrating that implementation is also shaped by bureaucrats’ *sensemaking*, or how they develop interpretations about a given policy – what it is about, what it is *doing*, and what their role is in enacting it (Yanow, 1996). I draw upon qualitative data collected between 2023-2025, including semi-structured interviews with 25 middle-tier bureaucrats in two Indian states and observations of their day-to-day roles in sites of policy delivery.

I find that while the FLN policy motivated middle-tier bureaucrats, their interpretations were shaped by limited educational expertise, relational dynamics, and the reform’s emphasis on process outputs and narrow metrics. Contrary to the envisioned transformation, bureaucrats’ sensemaking led them to reinforce conventional classroom practices, create arbitrary effectiveness criteria, and convert their complex instructional support roles into codifiable routines. By foregrounding

sensemaking as the mechanism through which policy becomes practice, this paper shows how bureaucrats' cognition shapes the translation of learning reforms. In doing so, it argues that the challenges to policy implementation in LMICs stem not only from institutional norms, but also from the epistemic limitations of individuals and policies themselves.

Literature Review and Conceptual Framework

Middle-tier bureaucrats in LMICs

Research has repeatedly shown that implementation depends on the discretion, consensus, capacity, and interpretations of bureaucrats at lower administrative levels (Lipsky 1980; Elmore 1980; Weatherley and Lipsky 1977). These actors include both *street-level bureaucrats* who directly interact with public service recipients, and *middle-tier bureaucrats* who link these frontline workers and the state. In education, research on policy implementation in LMICs has often focused on the role of street-level bureaucrats, mainly teachers, showing that their beliefs, constraints, and skills often clash with reform expectations, leading to adaptive practices that diverge from policy intent (Sriprakash 2010; Wolf and Avornyo 2023; Brinkmann 2019; Vavrus 2009). However, policy implementation extends beyond classrooms, where administrators, coaches, and supervisors connect policy design with frontline enactment through communication, oversight, and support (Childress et al. 2020). In recent times, the term 'middle-tier' in global education has become a broad category for a diverse range of such actors who operate at sub-national, district, sub-district, and regional levels (Asim et al. 2023). While the specific nature of their roles might differ from context to context, for the purposes of this paper, *middle-tier bureaucrats* are defined as “intermediaries within systems who are tasked with implementing and monitoring national education policies at the local level” (Tournier et al. 2025, p. 1161). These actors are a key cog in education systems; it is through them that schools encounter policies and states evaluate implementation. Yet empirical attention on them remains limited in LMIC education contexts.

Research on administrative bureaucrats indicates that their decision-making is shaped by organizational norms and constraints. Factors like corruption, political interference, tight monitoring, and incentive-based management undermine bureaucratic productivity, whereas autonomy, a sense of purpose, or social embeddedness enhance it (Grindle 2017; Honig 2024; Rasul and Rogger 2018). In education, while policy effectiveness often depends on systemic coherence, implementation falters when middle-tier bureaucrats are expected to prioritize different goals or when their professional, civic, and political roles are at odds with each other (Asim et al. 2024; Cilliers et al. 2022; Bell 2025). Asim et al.'s (2023) systematic review shows that existing research has mostly examined middle-tier bureaucrats' influence by either quantitatively associating decentralization with learning outcomes, or by qualitatively analyzing their institutional norms or management cultures. Yet little is known about the individual capacities and cognitive worlds of these actors.

Bureaucratic capacity in Indian education

Recent scholarship shows that bureaucratic effectiveness in India depends on the institutional contexts within which actors work. In education, for example, within a system marked by top-down control, compliance, and apathy, bureaucrats often perceive themselves as powerless agents of the state (Aiyar and Bhattacharya 2016), and consequently, deprioritize or disengage from efforts to improve educational quality (e.g. Aiyar 2024; Aiyar et al. 2015). Scholars argue that bureaucratic roles aren't singular, but composed of different categories of implementation tasks. Mangla (2022) identifies three such types: tasks that are routine and standardized (*codifiable*); that require frontline judgment and contextual knowledge (*intensive*); and that are open-ended, requiring deeper knowledge, expertise, and feedback loops (*complex*). Through extensive research on education policy delivery in India, Mangla shows that 'legalistic' institutional norms, emphasizing compliance of guidelines,

undermine bureaucrats' ability to deliver complex tasks, while 'deliberative' norms, which entail participatory dynamics, local embeddedness, and a problem-solving disposition, enhance it.

While these studies illuminate key facets of bureaucratic capacity, they adopt what I refer to as an *institutional* lens: they analyze bureaucratic behavior during implementation in relation to formal and informal organizational norms of the education system. However, they tend to take policies as a given more generally, i.e. they don't examine how these norms affect bureaucratic engagement with the actual substance of reforms. For example, studies trace the barriers to implementing differentiated instruction as part of Teaching at the Right Level to bureaucrats' apathy, systemic obsession with examination success, and a rule-driven compliance culture (Aiyar et al., 2015; Aiyar, 2024; Mangla, 2022). Though these dimensions provide insightful explanations for why actors behave the way they do, they are not specific to the core idea of the reform – differentiated instruction. As such, these studies don't center bureaucrats' sensemaking of the reform itself – their interpretations of what differentiated instruction is, why it matters, and what its guidelines are – and how that shapes implementation. A *cognitive* approach to policy implementation provides a broader, multi-dimensional lens to understand bureaucratic sensemaking and actions in such a case.

A cognitive framework for implementation analysis

Several studies emphasize that education policies aren't simply implemented or rejected by bureaucrats, but actively interpreted, reframed, and modified by them. Such appropriations are shaped by actors' interpretations of policy language, access to resources and specialized knowledge, political contexts, and normative beliefs (Tyack and Cuban 1995; Spillane 1999; Hill 2001; Levinson et al. 2009). These dimensions suggest the need for a *cognitive* approach, which holds that policy meanings aren't simply taken as a given by implementing agents, but actively constructed through their cognitive schemas (Spillane 2000). Spillane et al. (2002) outline a framework to explain how individuals make sense of a policy – which subsequently influences how they implement it. They

argue that policy sensemaking is driven by actors' *individual cognition* (knowledge, beliefs, values, etc.) and *situated cognition* (institutional norms, organizational contexts, social interactions, etc.), as well as *policy representations* (messages, guidelines, signals, etc.). Actor behavior during implementation is a function of how these three dimensions interact and shape their understanding of a reform. This perspective aligns with the broader literature's emphasis on sensemaking as not simply an individual process but also a social and discursive one (Weick 1995), which involves "attending to and bracketing cues in the environment, creating intersubjective meaning through cycles of interpretation and action" (Maitlis and Christianson 2014, p. 67). In other words, sensemaking includes not just the personal-level process of deriving meaning using one's own knowledge and beliefs, but also an interpersonal process where meanings develop as a result of interacting with other people, social environments, cultural systems, or stimuli.

Sensemaking critically affects implementation; for instance, actors who draw *form-focused* interpretations (related to activities, materials, classroom organization, etc.) of pedagogical reforms instead of *function-based* ones (related to pedagogical purposes, principles, vision, etc.) tend to support short-term, superficial changes while overlooking holistic, deeper changes in instruction (Spillane 2000; Spillane and Callahan 2000). At the same time, actors' active sensemaking of complex policy ideas and changes for themselves tends to shape the practices of stakeholders they work with (Honig et al. 2017; Coburn 2001). Whereas institutional accounts attribute implementation largely to the organizational factors, a cognitive approach emphasizes that how policy plays out in practice might also be driven by individual interpretations of a policy (Spillane, 1999; 2000). Thus, Spillane et al.'s (2002) cognitive framework not only incorporates institutional lenses, but also enriches them. In LMICs, existing explanations for bureaucratic capacity in education largely fall under the *situated* dimension of Spillane et al.'s framework – focusing on institutional aspects. As such, how *individual cognition* or *policy representations* also shape implementation gaps remain under-examined. I use the

cognitive framework – integrating all these dimensions – as a guiding light in this paper to show that institutional norms (as drivers of situated cognition) are an important but not the only determinant of how middle-tier bureaucrats interpret and implement reforms. Focusing on a recent FLN reform in India, this study analyzes bureaucratic sensemaking of policies and how those interpretations shape implementation.

Contextual Background

This study's context focuses on recent FLN reforms in India. In 2020, the country's latest National Education Policy (NEP) recognized a severe 'learning crisis' and declared the attainment of FLN skills for all children up to Grade 3 as an "urgent national priority" (MoHRD 2020, p. 8). Following this call to action, the NIPUN Bharat Mission¹ was launched in 2021 to achieve universal FLN by 2026-27. This policy initiative's major thrust was on four areas: improving enrollment and retention, monitoring learning, promoting the use of teaching and learning materials (TLMs), and strengthening teacher capacity (DoSEL 2021).

Particular emphasis was placed on the latter three areas. The mission prioritized monitoring data-driven decision-making and accountability, with teachers and bureaucrats instructed to regularly record learning and process data – for aggregation and analysis in district- and state-level dashboards. Pedagogically, TLMs like counting blocks, flash cards, etc. were distributed for promoting visual-tactile, activity-driven, and joyful learning environments (DoSEL 2021). Teachers were also provided with a package of scripted lesson plan guides and curricular materials (based on best practices) as part of 'structured pedagogy'. Teacher capacity to use these materials was to be developed through training and on-the-ground support during observations.

¹ NIPUN is the acronym for the National Initiative for Proficiency in Reading with Understanding and Numeracy. Here onwards, I refer to this policy as NIPUN.

In this paper, I examine data from two states – Haryana and Jharkhand. States in India were expected to formulate their own missions using NIPUN guidelines at the national level.² Both Haryana and Jharkhand launched their respective NIPUN missions, for which teacher guidebooks, student workbooks, and FLN kits with TLMs were provided to schools. Aligned with NIPUN's proposed decentralization, middle-tier bureaucrats – at district, block, and cluster levels – were given key roles in implementing these missions. While all such actors were expected to coherently ensure the achievement of FLN outcomes, some – like district or block education officers (DEOs or BEOs) – were mostly assigned codifiable or intensive tasks like distributing and updating resources for schools, scheduling training events, or troubleshooting logistical challenges (DoSEL n.d.). Others – like teacher mentors, block resource coordinators (BRCs and Assistant BRCs), cluster- or block-level resource persons (CRPs and BRPs), etc. – were expected to additionally carry out more complex roles. These ranged from “monitoring and supervision of the progress of activities” to “supporting teachers in adopting new pedagogical practices” (DoSEL 2021, p. 214), for instance, through discussions “to clear ‘hard spots’ and provide model lessons” (p. 225) during school observations.

As a specific example, NIPUN guidelines in Haryana expected teacher mentors (mostly ABRCs and BRPs) to “attentively observe the teachers’ teaching methods, usage of TLM, and participation of children... debrief and share key takeaways from each observation... conduct monthly review meetings with teachers at cluster level to discuss academic concerns” (DoSE n.d.). While the policy in this case was vague in terms of the outcomes of these complex observation-feedback tasks (what should good teaching look like, what to give feedback on and how), it was highly specific about process output goals: “each school visit involving three classroom

² In India, education is on the concurrent list – which means that while policies and guidelines are centrally issued, individual states bear responsibilities for carrying them out. Administratively, states are divided into districts – which are key governance units in Indian bureaucracies. District education officers (DEOs) oversee the various blocks in the district, which are further individually managed by block education officers (BEOs). Each block anything from a dozen to hundreds of schools depending on area, which are further grouped by clusters.

observations” or “conduct 20 classroom observations every month” (DoSE n.d.). This focus on outputs was consistent with patterns in legalistic bureaucracies in other LMICs (Mansoor et al. 2026). Additionally, despite being given the complex task of overseeing pedagogical change, many of these block- or cluster-level middle-tier bureaucrats in Haryana and Jharkhand were either repurposed from their prior roles or hired as a separate cadre, often without any prior school-teaching background. For example, the required criteria for recruiting ABRCs were more grounded in academic credentials (a Masters degree in *any stream* with 60% marks with a B.Ed/UGC-NET qualification) than any necessary practical experience. This was contrary to other states like Delhi, where instructional change agents for FLN policies were former schoolteachers with recognized teaching expertise (Aiyar 2024). Therefore, middle-tier bureaucrats without school-based experience were much more likely to draw on a very different set of knowledge and skills in carrying out their pedagogical support tasks than those who had any.

Methods

Sites and Sample

This study emerged from a larger project, in which I examined the implementation of NIPUN in Haryana and Jharkhand. I used a collective case study approach (Stake 1995) to identify recurring patterns of middle-tier sensemaking across distinct implementation contexts. While my analysis did not intend to compare NIPUN’s rollout in these two states, I used a comparative logic to analyze the divergence between policy and practice. In other words, this study contrasts policy guidelines and implementation realities to provide an explanation for what undermines reform impact. In a focal district in each state, I reached out to key middle-tier bureaucrats via formal and informal channels. After recruiting 13 focal participants, I included bureaucrats in other districts through convenience and snowball sampling as participants, to refine my findings as well as to rule out idiosyncrasies. Overall, 25 bureaucrats across Haryana ($n = 12$) and Jharkhand ($n = 13$) participated in this study, of

whom, only 4 had any prior classroom experience as schoolteachers. Further details about the participants, including their designation and prescribed role as part of NIPUN, are listed in Table 1.

Table 1: Participant details

Name ³	Gender	State	Designation	Prescribed role in implementing NIPUN
District-level				
Mithilesh	Male	JH ⁴	District Education Officer (DEO)	Prepare and oversee implementation plan; Overall tracking and monitoring of outcomes; Review block-level progress with BEOs; Ensure supply of resources to blocks.
Rajbir* ⁵	Male	HR	DEO - Elementary	
Peter	Male	JH	District Institute of Education & Training (DIET) Faculty	Provide academic training for teachers, mentors, BRPs; Visit schools to identify academic challenges; Create awareness plan for district; Collate and analyze academic data
Huma*	Female	JH		
Lokesh	Male	JH		
Gautam	Male	HR	District FLN Coordinator	Communicate state guidelines to district and block officials; Coordinate district-level and block-level action plans; Oversee trainings and professional development; Liaise with partner NGOs
Bini	Female	HR		
Block-level				
Meena	Female	HR	Block Resource Person (BRP)	Conduct in-service academic trainings for teachers and communicate instructional guidelines; Provide in-school support and teacher mentorship through monitoring and feedback; Collect classroom data and track progress
Asiya	Female	JH		
Falak	Female	HR		
Drishti	Female	JH		
Ramani	Female	JH		
Gajender	Male	JH		

³ All participant names used in this study are pseudonyms.

⁴ JH – Jharkhand, HR – Haryana

⁵ Asterisks indicate individuals with prior teaching experience in public schools.

Brij	Male	JH		
Jagnoor*	Male	HR	Assistant Block Resource Coordinator (ABRC)	
Sindhu	Female	HR		
Rajiv	Male	HR		
Heena	Female	HR		
Somlata	Female	JH	Block Education Officer (BEO)	Disburse funds and resources; Keep track of training programs; Oversee BRC support to teachers; Monitor block-level data
Ajay	Male	HR		
Cluster-level				
Rani	Female	HR	Cluster Resource Person (CRP)	Supervise schools in cluster and monitor progress; Visit schools and provide on-site support; Organize cluster sessions to promote best practices; Provide classroom demonstrations; Engage community and parents
Sophia	Female	JH		
Prabha*	Female	HR	Cluster Resource Centre (CRC) Head	
Sheela	Female	JH	CRC Coordinator	Collect data on schools and outcomes; Troubleshoot school-level challenges; Ensure delivery and maintenance of resources and materials in schools
Ujaan	Male	JH		

Data Collection and Analysis

I collected qualitative data for this study between 2023-2025, through semi-structured interviews and observations that were interspersed to dynamically inform each other. I conducted multiple, shorter interviews with each participant and included questions on their prior experiences, roles, beliefs on teaching and learning, experiences with NIPUN, as well as on any events or field visits where I observed them. All interviews were conducted, transcribed, and analyzed in Hindi⁶, following IRB approval and written consent. I also conducted roughly 200 hours of structured observations

⁶ All participants in this study, like me, were fluent speakers of Hindi.

between 2023-2025 at various *sites of policy delivery*: spaces where bureaucrats made decisions, gained policy knowledge, and communicated guidelines to others. These included formal events like trainings or administrative reviews as well as regular day-to-day occurrences like school monitoring visits or conversations in school principal or regional education offices. During observations, I specifically looked for data on four aspects: how policy guidelines were communicated; how bureaucrats' actions matched or differed from what they claimed in interviews; how consensus about implementation guidelines was achieved; and how conflicts or disagreements about the same were resolved. I took detailed fieldnotes on paper during these observations, and wherever granted permission, recorded audios. In addition, informal observations helped me understand subtexts and make sense of occurrences I encountered. Besides using my observation notes for this paper's analysis, I also used them to personalize interview protocols.

Interview transcripts and fieldnotes were analyzed over three rounds of coding using Atlas.ti. First, I used index coding (Deterding and Waters 2021) to break down my corpus into topic- or question-specific chunks for targeted analysis. Second, I was guided by the three dimensions of Spillane et al.'s (2002) cognitive framework, each of which I broke down into smaller *etic* codes – 'prior knowledge', 'beliefs about teaching', etc. for *individual cognition*; 'bureaucratic norms', 'social networks', etc. for *situated cognition*; and 'policy texts', 'policy messages', etc. for *policy representations*. I coded each index section using these codes. Third, I coded data within each etic code using *emic* codes; subsequently, I wrote analytic memos to synthesize the findings under each code family, and to identify emergent themes for each dimension of Spillane et al.'s framework. I mapped these themes to the initial index codes to list and identify links between interpretation and implementation.

Researcher positionality and limitations

My identities shaped my access to field sites and data collection. Like most Indian states, Haryana and Jharkhand were marked by social systems privileging gender, caste, class, linguistic, and communal groups. As a male, privileged-caste, Hindi-speaking scholar from a prestigious foreign university, my privilege afforded me the social, economic, and cultural capitals to collect in-depth data. Additionally, my position as a former teacher in India played a key role in my interactions with participants as well as my interpretation of the data. My familiarity with both the context and the informal norms of the Indian education system enabled several participants to feel more comfortable in sharing responses with me. It also helped me make sense of the silences, subtexts, and underlying meanings in the data. More importantly, my data analysis and policy interpretations were significantly influenced by my own specialized knowledge and expertise in teaching and learning. This enabled me to read the policy texts and its tools and guidelines in a different way than the bureaucrats in this study, and thus, to identify gaps or misinterpretations in their interpretations from my vantage point.

At the same time, however, my identity as an *external*, non-bureaucratic individual constrained my data in several ways. Some participants were wary of my academic affiliation, and thus, acted performatively in ways to ‘impress’ me. Without an ethnographic methodology, this made it hard to speculate with certainty about their behaviors or beliefs when they were not being interviewed or observed. There are two other methodological limitations important to recognize for this study. First, given its focus on 25 participants from a select few districts, the actions or practices I noticed cannot be generalized to all bureaucrats in India, not even in Haryana and Jharkhand. Instead, my goal is to generalize the mechanism of sensemaking as a way in which bureaucrats make decisions about implementation; given this is dependent on individual and contextual factors, bureaucratic implementation should be expected to vary in other districts and states. Second, the selection of participants through convenience and snowball sampling may have increased the

chances of selection bias, particularly in terms of similarities in institutional norms, dispositions, and motivation among these bureaucrats. While this does not affect my analysis of their sensemaking mechanisms considerably, it presents the possibility of other sensemaking mechanisms being prevalent among bureaucrats not part of this study.

Findings

I used Spillane et al.'s (2002) framework to drive my analysis, and I structure my findings section correspondingly by both organizing distinct insights from data as well as linking them to each other. I first describe sensemaking through policy representations to paint the larger policy-specific culture and narrative within which the individual and situated dimensions played out. Throughout these three sub-sections, I identify key mediums, mechanisms, or processes (in italics) through which sensemaking occurs, though these are not exhaustive. As I will also discuss later, the findings show what Spillane et al. emphasize – that these dimensions aren't exclusive to each other, but interact with each other to inform policy implementation.

Sensemaking through policy representations

Policy signals and representations play a key role in shaping how actors interpret and subsequently implement reforms (Spillane et al. 2002). NIPUN sought to prioritize learning (in the form of basic literacy and numeracy skills) through awareness campaigns about low learning levels, regular emphasis on policy goals, and discussions about learning outcomes at every bureaucratic level. The assumption was that these would create 'system-wide coherence' towards a shared goal (Pritchett 2013), and help actors develop an urgency for solving the problem of low learning. Since its launch, NIPUN was promoted through social media and publicity blitzkriegs, which highlighted statistics on FLN levels and emphasized the need to improve them for better academic and developmental outcomes (Author XXXX). Recent reports suggest that this translated into a 'systemic national push', reflected in a growing awareness of targeted learning outcomes among school actors (ASER

Centre 2025). My findings indicate that this awareness extended to middle-tier bureaucrats too – i.e. they had a coherent understanding of the outcomes that the policy sought.

Bureaucrats resonated with the policy’s intent to prioritize FLN. They viewed primary years as a crucial period, when children must master “the basics” to attain expected learning trajectories.

Mithilesh felt that:

People are least bothered with smaller kids and only focus on getting older kids to pass exams. They should realize that these small kids will be the ones who will reach that age tomorrow. So, if we can strengthen their foundations, our struggles in higher grades will reduce.

Such beliefs aligned with and echoed NIPUN’s central policy narrative around the prerequisite nature of FLN (Author XXXX). Bureaucrats also recognized that learning levels had long been low, reflecting a sense of urgency consistent with the mission’s. One participant expressed his concerns about students being “unable to write their own names or copy down the teacher’s writing on the board,” agreeing that these “basic problems must be solved immediately”. These beliefs about the necessity of improving FLN outcomes motivated bureaucrats to do their part in the mission’s implementation. Heena felt that “results will show if I put my own efforts. Maybe I won’t get any awards, but I will derive a lot of satisfaction from the fact that I tried to do something.” Such comments suggested that, unlike earlier accounts of bureaucratic apathy, NIPUN in Haryana and Jharkhand received strong support across the middle-tier.

Much of this enthusiasm and resonance stemmed from bureaucrats’ sensemaking through the *policy and media narratives* around NIPUN as well as an *assumed commonsense* about the necessity of achieving basic literacy and numeracy targets (Author XXXX). When asked about his understanding of the policy’s purpose, Rajbir stated: “It’s quite simple! Children should first learn to read, so that they can start reading to learn”. His words were a direct quote of one of the most used catchphrases that policymakers and partnering organizations in India, as well as FLN advocates globally, had used in campaign materials or social media posts to build policy consensus for FLN.

However, ambiguity in policy messages enabled space for implementing agents to construct their own understanding based on emphasized cues. While NIPUN provided a clear policy rationale and concrete goals, its guidelines on ‘how’ to achieve these targets were unclear. Despite rhetorical calls for ‘pedagogical change’ and the ‘use of child-friendly TLMs’, it provided little direction to middle-tier bureaucrats on how teachers could be instructionally supported – leaving their roles considerably undefined. Instead, the policy implementation design’s emphasis on process tasks, amplified by a culture of legalistic compliance, was the key stimulus available to them. This narrowed their interpretation towards a pressure to complete implementation tasks in terms of process outputs, not quality outcomes.

The communication of guidelines during district- or block-level meetings often reinforced this output-focused signaling. Monitoring systems and accountability mechanisms, central to NIPUN’s design, relied heavily on aggregated *dashboards populated by narrow process output goals*. According to NIPUN, one of the purposes for these dashboards was to foster “a competitive spirit amongst the districts and blocks” to achieve policy targets. Yet, given these dashboards entailed output metrics and not outcome metrics, official meetings centered around the urgency of having procedural outputs completed. During observations of block and district review meetings, I frequently heard supervisors provide guidelines in the following manner:

Last month, every mentor had to observe 9 classrooms. Here [pointing to dashboard], we see that out of 19 mentors, only 16 completed visits. We need to pay attention to this going forward.

Ramnagar⁷ block has had only 92% of classrooms using TLMs properly. I request all mentors and resource coordinators to ensure that this becomes 100% soon.

These examples illustrate the *reductive communication of policy expectations* to middle-tier bureaucrats in terms of outputs. Directives centered on raising the reported numbers of school visits or TLM use, without addressing what to do during those or how to increase usage respectively. As such, the

⁷ Anonymized

communicated policy guidelines seemed to prioritize improving quantitative indicators on dashboards and the logistics of input provision, rather than addressing substantive processes or behavior changes in schools. For middle-tier bureaucrats, these guidelines signaled that the policy and the administration accorded the highest value to an upward movement in dashboard metrics – as a result, they understood their responsibilities as ensuring that. This idea was further reinforced by *peer discussions* during and after these sessions. While observing these sessions, I noticed that most of the conversations between bureaucrats that took place once their supervisors stepped out of the room revolved around the logistics of completing these dashboard-related outputs. These included asking each other about plans for scheduling school observations and material distributions or nervous reflections on meeting their task targets. As such, the collective sensemaking about the policy was largely skewed by the pressure of completing tasks, instead of sharing best practices or problem-solving about monitoring and feedback.

Taken together, the compliance-driven norms of the Indian bureaucratic system (Mangla 2022) and the policy design's emphasis on quantified output indicators pushed bureaucrats to convert their assigned complex tasks into codifiable ones. Gajender explained that

There has been no major change in my role since NIPUN. Earlier I would visit schools to check whether mid-day meals were given or not, whether toilets were working or not. Now, when I visit, I look at whether TLMs are used or not, whether classrooms are print rich or not.

While his explanation suggested a shift in focus towards learning than inputs, it also captured the reduction of complex instructional monitoring into a checklist of observable indicators. In other words, even though the policy expected Gajender to 'encourage teachers to use TLMs' and monitor the same, he interpreted his role as only monitoring. Similarly, bureaucrats described their work in narrow, quantitative terms: school visits in terms of hours spent rather than insights gained; TLM usage evaluated by classroom distribution rather than pedagogical integration; or classroom observations reduced to checking coverage of syllabus and progress on prescribed objectives rather

than assessing instructional quality. Even learning outcomes were framed as “how many children were NIPUN⁸” and not as what they actually knew or could do. In essence, while NIPUN envisioned middle-tier bureaucrats to be instructional supporters, its output-oriented signals and structures made them see themselves as auditors of visible compliance, translating their complex tasks into codifiable and measurable ones.

Individual sensemaking

Most administrative offices of education in India are staffed by generalist rather than specialist bureaucrats. Yet despite limited knowledge of educational practice, these personnel hold their own normative ideas about teaching and learning, shaped by personal schooling experiences, beliefs, and assumptions. Examples of such notions typically include equating teaching with covering the syllabus and learning with achieving satisfactory test scores (Aiyar 2024; Brinkmann 2019); these play a key role in shaping how bureaucrats make sense of learning reforms. I found two patterns of this individual sensemaking in the case of NIPUN. First, lacking specialized knowledge, bureaucrats constructed their own criteria for policy effectiveness to satisfy their responsibilities. Second, their prior beliefs and knowledge about learning often superseded instructional changes recommended by the policy.

Constructing new effectiveness criteria

NIPUN assigned instructional support responsibilities to block- and cluster-level bureaucrats; they were expected to monitor classrooms to ensure, for instance, the use of TLMs and teacher guidebooks, despite their lack of specialized knowledge about those. Ramani acknowledged this gap:

[The state] has asked us to do monitoring, but we aren't 100% sure... I don't want to go to a school and get embarrassed. If I ask a teacher whether they have done an activity or not, and if they ask me back how to do it, then I will be left red-faced.

⁸ The word *nipun* in Hindi means ‘adept’ or ‘proficient’. As such, in implementation parlance, the policy name became synonymous with the goal; targets were often set as “making 100% children *nipun*”.

Lacking expertise as well as clarity about monitoring objectives, bureaucrats like Ramani were apprehensive about engaging substantively with teachers during school visits. This *fear of embarrassment* and the realization of *inadequate specialized knowledge* often led them to simplify policy expectations. As such, bureaucrats formulated their own criteria for monitoring policy implementation – shaped by both their *individual ideas of teaching and learning*, as well as a preference for codifiable tasks that masked their technical inadequacy for complex tasks.

For example, one part of bureaucrats' monitoring of classrooms focused on checking whether FLN TLMs were used or not. Yet, 'usage' was interpreted very differently among them. Prabha, a former teacher and a current school principal assigned as a CRC Head, explained that the purpose of TLMs was to "teach difficult parts of the lesson in a visual manner". On the other hand, bureaucrats without any specialized teaching experience understood TLM usage as the physical distribution of materials, not necessarily their purposeful application. Rajiv explained: "I ensure that teachers do activities while teaching... [on being probed what activities mean] as in, is the teacher only giving a lecture, or are they distributing cards and blocks to all children?" Similarly, Lokesh said: "Though I am not sure what some of them [TLMs] are for, I check that teachers have the kit open and distribute materials." Both of them believed that they were ensuring the usage of TLMs for 'activity-based learning' as the policy demanded. Yet, without a pedagogical understanding of the materials, they made sense of those as props or play items to be "distributed". While shadowing mentors during their school monitoring visits in three separate cases, I observed that they rated classrooms as 'using TLMs' in their records, even when teachers merely handed toys or materials to keep children engaged rather than teach using them.

The construction of such narrow effectiveness criteria was also linked to what bureaucrats interpreted as the value addition of policy tools like teacher guides or TLMs. Rani felt that TLMs would make children not "feel that they are studying, but playing." Similarly, Ujaan described FLN

books as “colorful, full of pictures, and attractive for students.” However, neither of them were aware or could articulate the instructional uses of these TLMs or FLN books. They made sense of those purely in terms of their visual or performative aspects, rather than their pedagogical functions – revealing their *form-focused* rather than *function-focused understanding* of reform guidelines at an individual level (Spillane and Callahan 2000; Spillane 2000). The former was more likely to render TLM or FLN book usage as a codifiable task (distributing attractive materials to make children play) rather than a complex task (ensuring the pedagogical function of the materials was met). This led to bureaucrats equating simplistic classroom routines as evidence of the policy’s successful implementation, thereby creating gaps between reform intent and practice.

Using prior knowledge

The combination of the policy’s emphasis on process outputs and limited pedagogical expertise often led bureaucrats to reinforce rather than transform existing classroom practices. Since NIPUN stated its learning goals more clearly than how to achieve them, bureaucrats frequently encouraged “whatever” practices they believed would produce those results, regardless of whether those aligned with the pedagogical principles enshrined in instructional materials. Consider the following discussion between a mentor, Falak, and a teacher, Rima, about the teacher guide’s recommendation on teaching multiplication using the more conceptual ‘area’ or ‘grid’ method (Figure 1(a)) rather than the procedural long multiplication method (Figure 1(b)).

Rima: Do we really need to do this [area/grid] new method?

Falak: I am not sure, but I think this method is time consuming. I feel that children would just find the normal [long multiplication] method easier. We also used that as kids. This new method is too complicated; let’s keep it simple. Anyways, the goal is for children to multiply correctly. It doesn’t matter what method they use.

Rima: But the exercises in the workbook ask children to use this [area/grid] method.

Falak: I know, but it’s fine. Why don’t you give one example of this method on the board for children to copy down. And then ask them to do the rest of the sums normally.

Figure 1: (a) Area/grid method for multiplication (b) Long multiplication method

63 x 12					
	60	3		6	3
10	$60 \times 10 = \mathbf{600}$	$3 \times 10 = \mathbf{30}$	x	1	2
2	$60 \times 2 = \mathbf{120}$	$3 \times 2 = \mathbf{6}$		1	2
$600 + 120 + 30 + 6 = \mathbf{756}$			+	6	3
				7	5
					6

(a)
(b)

Lacking pedagogical content knowledge of mathematics as well as any prior teaching experience, Falak didn't understand the conceptual rationale behind the guidebook's emphasis on the area/grid method. Instead, driven by her understanding of the policy goal as getting children to multiply, she compared the two methods through sensemaking in terms of their ease – their *speed* (“time consuming”), *familiarity* (“we used as kids”), and *simplicity* (“too complicated”). Falak's familiarity with the learning goals rather than the instructional changes to achieve them resulted in her interpreting the policy only in terms of reductive outcomes (“the goal is to multiply correctly”). Consequently, she not only discounted the recommended instructional method but actively suggested bypassing it to resort to the conventional procedural method. This entails the act of ‘sensegiving’ where, in the process of making sense of an idea (policy expectation) for themselves, the individual shapes the sensemaking and meanings drawn for others (Maitlis and Christianson 2014). In a follow-up interview, Falak explained her thinking:

This is a lot like teaching children how to ride a bicycle. When they are small, we attach two side wheels for support... and when they learn to ride the bike, we remove those side wheels. So it's the same thing here. If the child can already ride the bicycle, then why attach the side wheels? Children are anyways used to the [long multiplication] method.

Akin to Falak's, there were other cases where bureaucrats discounted recommended instructional changes in favor of established routines that they personally believed as "what worked". Drishti erroneously endorsed a teacher's rote approach to solving math word problems – "if the items in the question increase, add" – as "a short-cut method to get correct answers quickly." Ajay, a BEO, proudly supported choral repetition of textbook chapters (without comprehension or individual reading) as an acceptable instructional practice, as he believed that's how most people, including him, learnt to read. Neither of Falak, Drishti, and Ajay had any prior teaching experience or subject-level specialization, and yet had instructional leadership as part of their roles. In these cases, their interpretations of NIPUN's expectations were shaped by their own *personal beliefs and learning experiences as school students themselves*. These personal schemas led them to privilege familiarity and efficiency to achieve goals, over changing practice. Through a process of sensegiving, the meanings they drew of the policy guidelines this way were then passed on to teachers and principals in school, who in the absence of direct engagement with the policy, relied on these middle-tier actors for directives. Thus, rather than enabling any pedagogical transformation, their suggestions in fact encouraged longstanding – often rote, misguided, and procedural – teaching practices.

Situated sensemaking

Middle-tier bureaucrats often have to navigate *conflicting logics and expectations* (Asim et al. 2024; Bell 2025); on one hand, they must ensure compliance with policy guidelines, while on the other, they must support street-level bureaucrats to adopt reforms by responding to their needs. I found that this tension profoundly shaped the interpretive basis for their implementation roles. Prevalent *bureaucratic norms of rule-driven compliance* in India (Mangla 2022) deprives bureaucrats of agency over their roles; this acted as the situated backdrop against which bureaucrats make sense of policies and their role in them. Sindhu believed that "even though NIPUN gives us an important role, at the end

of day, we are just information broadcasters.” She described her role of monitoring, collecting, and sending data to the state and sharing guidelines with schools through a self-perception akin to a ‘post office worker’ (Aiyar and Bhattacharya 2016). During observations of review meetings, I found that bureaucrats’ performance was routinely evaluated based on the speed and volume of data transmission rather than the quality of their instructional support. Even sessions to familiarize bureaucrats with the content of teacher guides centered on the logistics and protocols for distributing those.

Relatedly, bureaucrats in both states felt that the system’s priorities were more administrative than academic. Peter remarked that while NIPUN was “a good policy for improving learning”, it was now “all about data reporting.” Echoing similar beliefs, Heena reflected that “earlier, we reported whether mid-day meals were provided, now we report whether children can read”. She felt that the pressure of continuously sharing data with higher-ups was so much that it didn’t “matter whether [the data] is correct, accurate, or properly collected.” Driven by the state’s relentless demand for data – emerging from the policy’s emphasis on monitoring and accountability – as well as the legalistic norms that incentivized the same, bureaucrats interpreted their assigned tasks like school visits as related to fulfilling and recording progress on process outputs (how many visits, etc.) rather than qualitative objectives (what to observe and give feedback to teachers on, etc.).

Such interpretations profoundly shaped what their school visits entailed. Consider the following vignette of a BRP’s visit to a school, based on observational data. During a prior interview, the BRP explained that the purpose of their school visit was to “give teachers academic support”, “ensure high-quality teaching”, and “see if students were learning”. Yet during the visit that lasted just over an hour in total, I recorded the sequence of her activities: meet principal and exchange pleasantries; observe lesson in Classroom #1 for 15 minutes; conduct spot assessments of 5 randomly selected students using a mobile app; repeat observation and assessments in Classroom

#2; fill a given observation template to record status of indicators like ‘Is the classroom print-rich?’, ‘Is the teacher using TLMs?’, ‘Did the teacher teach the objective assigned for the particular day in the teacher guide?’; record (handwritten) their observation summary and feedback in a physical register maintained by the school; meet principal to check about logistical aspects like availability of textbooks or TLMs. Contrary to both NIPUN’s expectation and her own claims, the BRP prioritized filling observation templates and assessment data over any kind of meaningful interaction with teachers and students, as well as recording her feedback in a register than verbally providing it to teachers. When I asked her afterwards why her visit centered so much around recording data, she sarcastically replied: “If I don’t enter the data, no one will believe that I actually visited the school!” – revealing how situated factors like *data demands*, *lack of trust*, and a *culture of output-driven compliance* shaped the BRP’s interpretation and implementation of her role.

Bureaucrats’ sensemaking of NIPUN was also shaped by relational and discretionary dimensions. Recognizing that learning outcomes were a function of not only instructional practices but also systemic factors like infrastructure, teacher-student ratios, and attendance (Author XXXX), middle-tier actors were often sympathetic towards teachers. This was particularly true for those who had prior school-teaching backgrounds – revealing how *bureaucratic empathy* plausibly developed as a result of *shared lived experiences*. For example, Jagnoor explained that “it would be wrong to blame teachers...if they put in 100% effort, and yet a child doesn’t learn how to read”. Balancing policy compliance demands with empathetic support of teachers shaped how bureaucrats like him interpreted and subsequently implemented their roles. While NIPUN expected them to observe teachers and give them technical feedback objectively, their actions during school visits reflected how their decision-making was shaped by various situated factors – discretionary judgment (Lipsky 1980), moral reasoning (Zacka 2017), and deliberative outlooks (Mangla 2022). For instance, Meena explained that

instead of telling teachers what didn't happen in their classes, I just tell them what I would like to see next time. I don't make it sound like an order, telling them what to do. Instead, I suggest that this is also how you can do it.

This shows how she interpreted policy expectations of 'giving feedback' through relational and moral discretion, especially when those didn't specify how to do so. Similarly, Huma, a former teacher, admitted to bending the rules occasionally:

Sometimes I might go to a school with only one or two teachers. They might work hard, but on that given day, they might not be teaching due to having administrative work. So I ask them to teach in the class, while I complete their data entry... I still mark that as a classroom visit for my reporting, even though I do not get to see what they teach.

Her example illustrates a powerful case of solidarity between middle-tier and street-level bureaucrats, where she helps alleviate teachers' administrative burdens while also shielding them from scrutiny by appropriating her monitoring reports to satisfy compliance. On paper, her visit is recorded as a fulfillment of policy expectations; in practice however, it bypasses the substantive intent of the reform by prioritizing moral judgment and contextual discretion. While this empathetic solidarity might originate in Huma's own lived understanding of teacher workload in the past, others without any teaching experience also suggested being "flexible" in imposing the policy on teachers. They recognized teachers' capacities and constraints, and thus, felt that supporting them required a cautious approach that maintained accountability without antagonizing them. Two ABRCs in Haryana even admitted to forging or "adjusting" the data they reported on TLM and teacher guide usage, especially when they had to deal with practical challenges and still satisfy strict monitoring metrics – revealing that the policy's implementation was appropriated by how bureaucrats *mediated compliance and discretion* in their situated sensemaking context.

Discussion

Middle-tier bureaucrats in LMICs are increasingly being tasked with instructional support as part of reforms to improve FLN outcomes. Comparing policy expectations with the realities of its delivery,

this study finds that while bureaucrats were motivated about the reform, how they *made sense* of it fundamentally shaped its implementation. Seen through Spillane et al.'s (2002) framework, bureaucrats' interpretation and implementation of the NIPUN mission India were influenced by their individual cognition (limited pedagogical knowledge, personal assumptions about learning, prior experiences, etc.), situated cognition (institutional norms, demands for data, hierarchical positions, etc.), and policy representations available to them (policy narratives, dashboard metrics, policy communication, etc.). These three dimensions were not exclusive, but frequently interacted with each other to shape implementation practices. For instance, a mixture of the pressure to submit monitoring data (*situated*), satisfy the dashboard metric of 'number of classrooms using TLMs' (*representations*), and a lack of pedagogical knowledge (*individual*) led bureaucrats to simplify the complex task of 'supporting TLM usage' to a codifiable one of merely recording their distribution in classrooms. As such, while NIPUN expected bureaucrats to perform both codifiable tasks like data collection and monitoring as well as the complex, deliberative work of supporting teachers in instructional change, they transformed the latter into superficial, form-focused exercises akin to the former. I argue that this codification is not due to apathy or a lack of will, but a rational response to technical inadequacy and policy ambiguity.

My findings also demonstrate the limitations of policy initiatives in education that assume data-driven cultures or simple, measurable targets as key to enhance accountability and effectiveness. NIPUN was designed as a 'mission-mode' initiative that would consolidate systemic efforts around clear, measurable learning goals. While such mission-modes on a recurring basis are seen as vital for legalistic bureaucracies to effectively function (Aiyar 2024), I show that despite creating system-wide enthusiasm and coherence, the emphasis on meeting quantified targets tends to leave interpretive ambiguities about how to do so. In the case of this paper, these gaps reinforced compliance-oriented cultures and traditional practices further. NIPUN's clearly articulated *what* (literacy and numeracy

targets) but vague *how* (instructional support to achieve those) pushed bureaucrats to interpret effectiveness through the indicators that they could most easily understand or control. This resulted in a *form-focused* sensemaking (Spillane 2000) – bureaucrats understood NIPUN as the achievement of visible, quantifiable outcomes (students reading faster, classrooms displaying print materials, etc.), while overlooking any deeper changes. What appeared behaviorally within NIPUN as coherence and commitment to goals translated, in cognitive terms, to an intensification of conventional beliefs about education to meet policy targets.

At the same time, some of the divergence between policy and practice in this paper was also related to the use of dashboards to monitor and govern as well as the over-emphasis on quantitative process output data within the NIPUN Bharat Mission. Studies from other contexts caution how while dashboard usage enhances a sense of activity and awareness among stakeholders, it also compromises accuracy, limits understanding, and doesn't always provide concrete action steps (Hardy et al. 2024; 2026). This paper demonstrates similar issues: despite a motivation to implement NIPUN among middle-tier bureaucrats, their interpretations were severely constrained by the legalistic focus on satisfying narrow process outputs that populated the dashboard. This resulted in not only sustaining a systemic distrust of actors (see also, Daliri-Ngametua et al. 2022) – as my vignette of a BRP's schools visit shows, but also flattening the policy's vision for quality education (see also, Mukhopadhyay and Sriprakash 2013; Barrett 2011) as bureaucrats created their own success criteria for instruction.

I underline four key contributions of this paper here. First, it adds new empirical layers to understanding bureaucratic capacity in delivering education reforms in India and other LMICs. Prior scholarship has foregrounded institutional cultures and bureaucratic norms as key determinants of implementation effectiveness (Mangla 2022; Aiyar 2024; Asim et al. 2024). While my findings affirm the importance of these dimensions, they show that bureaucrats' *individual educational expertise* and the

visible representations of the policy also matter. While not decoupled from institutional norms as Spillane et al. (2022) suggest, my findings demonstrate that these two aspects also play equally important roles in influencing delivery. Despite being committed to the policy and perhaps desirably mission-driven (Honig 2024), bureaucrats' lack of specialized knowledge about teaching and learning as well as the communication of reform guidelines in terms of narrow metrics created hesitation, procedural shortcuts, and eventual simplification of implementation tasks. Thus, rather than viewing implementation breakdowns as a problem of only political will or institutional norms, these findings also highlight the epistemic limits of bureaucratic engagement with educational reform.

Second, these findings re-emphasize the crucial role played by middle-tier bureaucrats in driving educational impact in LMICs (Asim et al. 2023). By highlighting their sensemaking as a key mechanism linking policy, state capacity, and practice, I argue that middle-tier bureaucrats are not powerless agents who simply comply with or circumvent education reforms. Instead, using a cognitive lens (Spillane et al. 2002), I show that they are active *interpreters* who construct their own policy meanings and reformulate guidelines. Their cognitive, institutional, and moral reasoning mediate the translation of education policies into local realities: their interpretations determine not only whether policies are enacted, but also *how* they are enacted. Through this paper, I suggest that the middle-tier in education governance is comprised of individuals with not just varying roles but also unique cognitive positions. Therefore, scholarship in comparative and international education, as well as policy initiatives in LMICs, must therefore avoid treating this group of actors as a homogeneous set and use a more differentiated approach to empower them. At the same time, my findings underline that the challenges and practices of middle-tier bureaucrats are tethered to the systemic context they work in. This makes it imperative to avoid the isomorphic mimicry (Andrews et al. 2017) of technocratic approaches to strengthen the middle-tier across LMICs without engaging with the social, cultural, and political particularities of bureaucratic systems.

Third, these findings provide a nuanced understanding of how bureaucratic discretion operates in education systems. Research often portrays discretion as a tool for flexibility and responsiveness (Weatherley and Lipsky 1977); however, I find that the exercise of discretion by bureaucrats both subverted and humanized policies. Bureaucrats frequently bypassed unfamiliar pedagogical ideas, encouraging teachers to rely on traditional practices to achieve outcomes; while in other cases, they softened rigid monitoring rules to empathize with teachers' workloads or challenging working conditions. Such actions underline the need to analyze bureaucratic work through the personal, moral, and relational judgments it entails (Zacka 2017; Mangla 2022), rather than compliance or non-compliance with tasks. Yet I show that bureaucratic discretion without sufficient technical capacity can have contradictory effects – it can maintain trust between tiers of the system while simultaneously diluting the substance of reforms. Conceptually, understanding these micro-level negotiations illustrate the myriad ways in which discretion shapes implementation.

Fourth, while applying Spillane et al.'s framework to an LMIC context like India helps uncover new dimensions for implementation analysis, its comparative usage conceptually enriches the model itself. Scholars argue that by focusing too much on sensemaking as an individual process, Spillane et al.'s framework overlooks how socio-political systems or power imbalances shape implementation (Levinson et al. 2009). This is particularly important for LMIC contexts, where policy processes and governance structures are not as decentralized as some Global North settings. My findings show that while institutional norms and state demands drive bureaucrats' situated sensemaking, it is also shaped by their unique political positions as intermediaries between the *state* (policymakers, senior bureaucrats) and the *street* (teachers, principals). As such, how they interpret and implement reforms also has a *relational* dimension to it – consisting of responding to and satisfying such social relationships and power differentials unique to specific LMIC contexts.

Conclusion

In recent years, the role of middle-tier bureaucrats in driving educational outcomes in LMICs has begun receiving attention from scholars and stakeholders globally. Dominant narratives often portray these actors as negligent agents and bottlenecks for reform, in need of disciplining. Yet, within complex education systems like India's, where the gap between policy elites and street-level bureaucrats is immense, they form an important connective tissue that translates policy intent into practice. Research in education tends to focus either on policy elites formulating reforms or teachers carrying them out in the last mile. As such, middle-tier bureaucrats have been at the *middle* in education systems, but never *central* in education scholarship – actors studied closely only in public administration or political science. This paper adds to recent literature on these actors (e.g. Asim et al. 2024; Bell 2025) in highlighting their crucial roles.

The findings from this paper also open up space to discuss the ways in which the middle-tier can be supported better to implement policies and programs more effectively. The influence of bureaucrats' lack of specialized education expertise on their implementation capacity might suggest the need for rigorous professional development to build the same. Strengthening education systems requires 'backward mapping' (Elmore 1980) from their everyday realities – engaging with their institutional norms, decision-making contexts, and cognitive worlds, and equipping them with the necessary skills to enact reforms meaningfully. This could also entail more participative policy orientation processes rather than a one-dimensional communication of guidelines. Yet, as has been the case with teachers in LMICs, this approach might be slow, expensive, and highly context specific. On the other hand, one might also surmise from these findings that providing bureaucrats with clear, pre-set action items aligned with envisioned changes might be the efficient way forward in situations of limited capacity. Similar approaches have yielded positive outcomes, for instance, in the case of structured teacher guides in some Sub-Saharan contexts (Piper et al. 2018). Yet, as in the case of structured pedagogy (e.g. Hoadley 2024), while this might help improve codifiable components of

their work, it might not necessarily build capacity for sustainable changes in bureaucratic practice. As scholarship from LMICs have frequently shown (e.g. Mangla 2022), bureaucratic work involves significant cultural, relational, and interpretive components, which might not just be difficult to but also undesirable to flatten into codifiable, legalistic routines. The tension between these possibilities provides a fertile ground for future research and policy design to explore novel strategies for supporting the middle-tier in education systems.

This paper illustrates how both cognitive and institutional dimensions affect policy implementation. While I show that these dimensions are intertwined, studies should systematically attempt to disaggregate their respective effects. How might greater technical expertise impact bureaucratic capacity? In other words, would middle-tier bureaucrats with prior school teaching experience be necessarily more effective as instructional leaders and education policy implementers? To what extent may such specialized knowledge offset the effect of institutional norms? At the same time, future research can probe deeper into how sensemaking is shaped by bureaucrats' identities, selection criteria, backgrounds, or cultural norms. In policymaking, there needs to be a recognition that middle-tier bureaucrats play a much larger role than instructional support – including managing intersecting domains of school quality and governance. Expecting them to prioritize learning above other responsibilities, for the sake of policy coherence around outcomes, is both misguided and short-sighted. While this paper examines *bureaucrats making sense of policy*, there needs to be a reckoning with how *policy makes sense of bureaucrats*. How do policymakers envision and plan for the roles various bureaucrats play? During policy design, what assumptions are made about them, how are they spoken about, and how is their implementation role pre-empted? These questions require deeper introspection and discussions during the design stage of reforms.

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