# What Works Hub
## for Global Education

# Entry points for supporting middle-tier officials in foundational learning reforms: Equip, connect, inform, empower

## Synthesis brief

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**Synthesis brief**

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# Box 1

## Summary: Entry points for supporting middle-tier officials in foundational learning reforms

**Entry points for supporting middle-tier officials in foundational learning reforms**

| **Equip** | **Connect** | **Inform** | **Empower** |
|---|---|---|---|
| middle-tier officials with the knowledge and resources to work toward foundational learning goals. | middle-tier officials to a shared commitment to foundational learning goals. | middle-tier officials about progress toward foundational learning goals (eg with student assessment data). | middle-tier officials to prioritise and adapt in line with foundational learning goals. |

### Why is this entry point important?

| | | | |
|---|---|---|---|
| In most education systems, middle-tier officials do not receive adequate training nor inputs (eg transport allowances) for fulfilling their responsibilities. This has negative effects on implementation quality. | A sense of connection to shared goals is a key factor in motivation. It has been shown to be present in low-resource settings with high-performing public services. | Regularly updated information on progress toward learning goals can help middle-tier officials tailor support to teachers and schools, foster a sense of connection, and correct misperceptions about progress. | Middle-tier officials often need to respond to complex implementation contexts that require flexibility and adaptation. They also need the flexibility to prioritise foundational learning goals alongside competing demands. |

### What might this entry point look like? (illustrative examples)

| | | | |
|---|---|---|---|
| Providing an aligned package of initial training, tailored materials, monthly review meetings between coaches and middle-tier managers, and fuel allowances to help coaches to monitor and support teachers' delivery of a new pedagogical programme. | Creating opportunities (eg in monthly group meetings) to discuss experiences, challenges and organisational mission with colleagues and/or with beneficiaries. | Using low-cost technologies (eg WhatsApp messages, existing tablets) to provide middle-tier officials with right-sized, timely information about each classroom or school that they are responsible for visiting. | Revising middle-tier officials' job descriptions to prioritise responsibilities that contribute to foundational learning goals. |
| Partnering with universities to design and offer accredited qualifications for middle-tier officials that focus on the technical knowledge and skills needed to improve children's foundational learning. | Generating social recognition incentives by publicising (good) performance. Introducing financial or other extrinsic incentives that have a collegial component and are carefully calibrated to minimise negative side effects (eg based on collective rather than individual metrics). | Building dashboards that summarise key indicators of progress toward foundational learning goals and that offer tailored interfaces to top decision-makers, middle-tier officials, and teachers and headteachers. | Granting middle-tier officials the discretion to target certain resources or activities (eg follow-up school visits) where they are most needed, with appropriate checks and balances. Streamlining reporting requirements to reduce time middle-tier officials spend on extensive administrative processes. |

# 1 | Introduction

**Middle–tier officials are intermediaries between top decision–makers and schools in education systems, responsible for implementing and monitoring policy plans.**[1]

Middle–tier officials hold a wide range of responsibilities in educational implementation. For example, some serve as coaches and supervisors who directly support teachers and head teachers. Others serve as middle–tier managers who support and supervise their school–facing colleagues. Middle-tier officials include actors such as district education officers, school inspectors, curriculum advisers, teacher mentors, and quality assurance officers, among others.

## The scope of this synthesis

As **intermediaries between top decision–makers and schools in education systems, middle–tier officials are crucial in implementing and monitoring policy plans** that are designed by a small number of policymakers but ultimately delivered at scale by teachers and other school–level actors. When middle-tier officials are adequately supported, they can be linchpins connecting and maintaining coherence between head offices and millions of children and teachers across geographically dispersed classrooms.[2] For example, a study in Tanzania found that the management practices of district education officers explain 10% of between–district variation in student learning outcomes.[3]

The vital role of middle–tier officials in implementing foundational learning reforms is illustrated in Figure 1, which uses the intellectual framework of the What Works Hub for Global Education to show the main (but not the only) points where middle–tier officials act as intermediaries:

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1 This definition is modified from the definition of the middle tier on p. 19 of in Tournier, B., Chimier, C., & Jones, C. (Eds.). (2023). *Leading teaching and learning together: The role of the middle tier.* IIEP–UNESCO, Education Development Trust. This synthesis uses the term 'middle–tier officials' rather than 'the middle tier' to focus attention on the people within the bureaucracy, rather than the institutional structure of the 'middle tier'. The use of 'officials' also distinguishes them from assistant headteachers and heads of departments within schools, who are sometimes called 'middle management' or 'middle leaders'.

2 Pritchett, L. (2015). Creating Education Systems Coherent for Learning Outcomes (RISE Working Paper Series No. 15/005). Research on Improving Systems of Education (RISE).

3 Cilliers, J., Dunford, E., & Habyarimana, J. (2022). What Do Local Government Education Managers Do to Boost Learning Outcomes? The World Bank Economic Review, 36(3), 629–645. For an example in Zambia, see Walter, T. F. (2019). State management of education systems and educational performance: Evidence from a management survey at district education offices in Zambia (Project Report No. S–89454–ZMB–2). International Growth Centre. For an example in Israel, see this causal analysis of school supervisors ('CEOs' who are each responsible for several schools), which found that supervisor quality significantly affects students' learning outcomes, and that schools with higher–quality supervisors tend to have better internal operations: Lavy, V., Rachkovski, G., & Boiko, A. (2023). Effects and Mechanisms of CEO Quality in Public Education. The Economic Journal, 133(655), 2738–2774.

- Middle–tier officials are key actors when innovative foundational learning approaches *are* being tested in government systems *(effectiveness trials)*. For example, in a randomised controlled trial of a differentiated instruction programme in Ghana, children's learning improved significantly when teacher training by district–level officials was combined with regular classroom observations from headteachers and circuit supervisors.[4]

- Middle–tier officials are also key actors in implementing programmes across a jurisdiction *(practice at scale)*. Under a national teacher development programme in Kenya, teachers who received training directly from middle–tier officials improved their teaching practices significantly more than those who were supposed to receive school–based cascade training from colleagues in the same school.[5]

- Middle–tier officials are also key intermediaries in the pathway from translating *policy plans* to *practice at scale*. During a series of foundational learning reforms in Delhi schools, middle–tier officials not only delivered teacher training and conducted classroom observations but also helped teachers to translate official instructions into concrete classroom practices.[6]

**Figure 1**    **The role of middle–tier officials within the What Works Hub for Global Education intellectual framework.**

As key links in the chain from policy plans to practice at scale, middle–tier officials are key to implementing education reforms and interventions to help all children cultivate foundational literacy and numeracy.
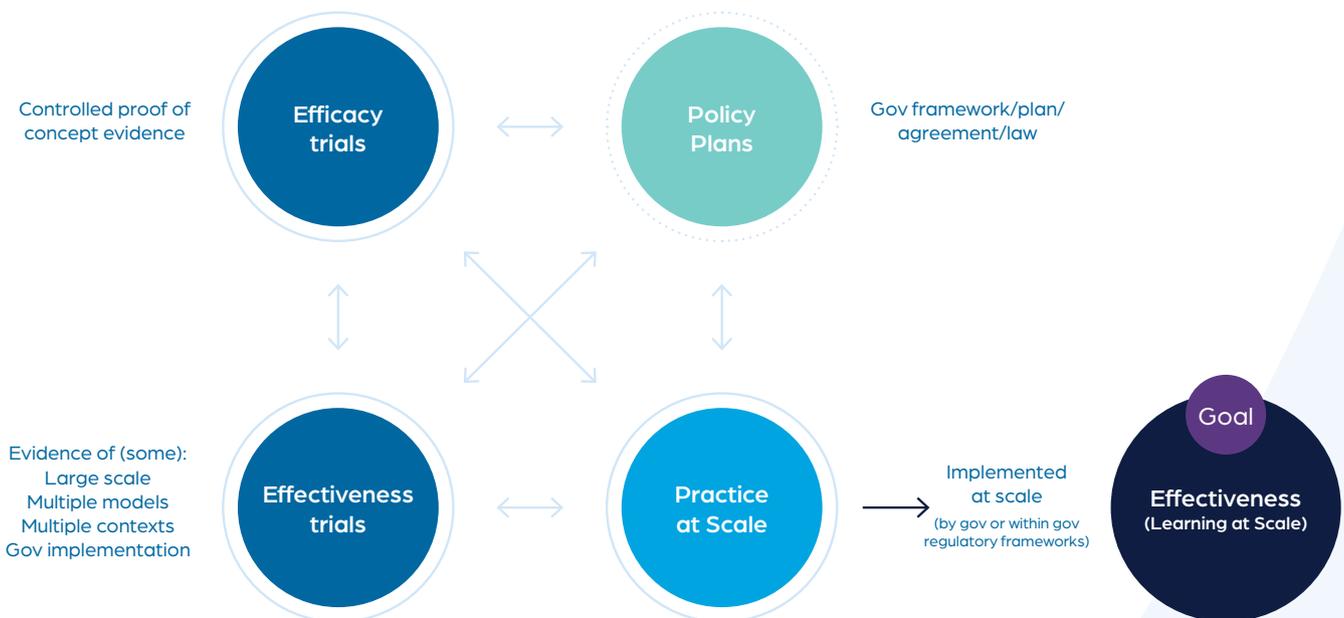


Controlled proof of concept evidence — **Efficacy trials**

**Policy Plans** — Gov framework/plan/agreement/law

Evidence of (some):
Large scale
Multiple models
Multiple contexts
Gov implementation — **Effectiveness trials**

**Practice at Scale** — Implemented at scale (by gov or within gov regulatory frameworks)

Goal — **Effectiveness (Learning at Scale)**

4 Beg, S. A., Fitzpatrick, A. E., & Lucas, A. (2023). *Managing to Learn* (Working Paper No. 31757). National Bureau of Economic Research.

5 Hardman, F., Abd–Kadir, J., Agg, C., Migwi, J., Ndambuku, J., & Smith, F. (2009). Changing pedagogical practice in Kenyan primary schools: The impact of school–based training. Comparative Education, 45(1), 65–86. For another example of middle–tier officials effectively coaching teachers, see: Cilliers, J., Fleisch, B., Kotze, J., Mohohlwane, N., Taylor, S., & Thulare, T. (2022). Can virtual replace in–person coaching? Experimental evidence on teacher professional development and student learning. Journal of Development Economics, 155, 102815.

6 Aiyar, Y. (2024). *Lessons in State Capacity from Delhi's Schools*. Oxford University Press.

Thus, identifying **entry points for supporting middle-tier officials in foundational learning reforms** is important for ensuring that policy plans are implemented at scale. Such entry points are the focus of this synthesis.

This synthesis focuses on entry points for supporting middle-tier officials in **implementation at scale in Global South education systems.**

- The synthesis looks at **supporting middle-tier officials who are currently part of the education system.** It does not address topics such as recruitment, selection and credentialling of middle-tier officials. Also, it does not discuss how middle-tier officials themselves should support teachers and headteachers.[7]

- The synthesis focuses on **entry points that are relevant to middle-tier officials in ongoing implementation**, rather than on specific parts of the policy implementation cycle (eg initial policy design). Neither does it prioritise evidence or examples related to a small subgroup of middle-tier officials (eg a few middle-tier representatives invited to serve on a programme design committee).

- Also, the synthesis prioritised evidence from **resource-constrained contexts in the Global South**.[8] Accordingly, there are relatively few citations of, for example, the established body of research on the role of district education offices in the United States.[9]

## The synthesis process

The four entry points for supporting middle-tier officials in foundational learning reforms — equip, connect, inform and empower — result from a **synthesis process** that **bridged implementation and research**[10] across contexts and academic disciplines.

- Accordingly, the four entry points provide practical guidance for implementers while building on theory and pointing toward future research.

> **Identifying entry points for supporting middle-tier officials in foundational learning reforms is important for ensuring that policy plans are implemented at scale.**

7 Recent synthesis on how middle-tier officials can support school-level actors include: Tournier, B., Godwin, K., Cameron, E., & Lugaz, C. (2025). Leveraging the potential of the middle tier to improve education outcomes: The role of a capacity assessment framework. IIEP-UNESCO. Bell, S. (2024). The Middle Tier's Role in Education Improvement: Insights from Social Network and Bureaucratic Norms Research. Science of Teaching. Tournier, B., Chimier, C., & Klein, E. (2025). Improving the Quality of Teaching at Scale: Middle-Tier Instructional Leaders as Change Agents. ECNU Review of Education, 'online first' version.

8 For empirical examples of middle-tier officials in the global south grappling with competing and sometimes ambiguous demands that exceed available time and resources, see: Rahman, S., Burns, P., Wolfram Cox, J., & Alam, Q. (2024). Exercising bureaucratic discretion through selective bridging: A response to institutional complexity in Bangladesh. Public Administration and Development, 44(2), 61–74. Swift-Morgan, J. (2014). Confronting the Informal in Good Governance: The Case of Decentralised Education-System Reform in Guinea. Development Policy Review, 32(4), 399–425. Joshi, P. (2024). How education sector functioning is affected by political influences: Perspectives from district level education officials in Nepal. Compare: A Journal of Comparative and International Education, 54(2), 314–331.

9 See, for example: Blazar, D., & Schueler, B. (2024). Effective School District Policies and Practices: Synthesizing Theoretical Frameworks and Empirical Findings across Disciplines. Journal of Research on Educational Effectiveness, 17(4), 647–686. Hargreaves, A., & Dennis, S. (2020). Leading from the middle: Its nature, origins and importance. Journal of Professional Capital and Community, 5(1), 92–114. Honig, M. I., & Coburn, C. (2008). Evidence-Based Decision Making in School District Central Offices: Toward a Policy and Research Agenda. Educational Policy, 22(4), 578–608. Spillane, J. P., & Thompson, C. L. (1997). Reconstructing Conceptions of Local Capacity: The Local Education Agency's Capacity for Ambitious Instructional Reform. Educational Evaluation and Policy Analysis, 19(2), 185–203.

10 For more on this approach to synthesis and evidence translation, see Kaffenberger, M., & Hwa, Y.-Y. (2024). A conceptual framework for synthesis and evidence translation to improve implementation of foundational learning (No. 2024/003; WWHGE Working Paper Series). What Works Hub for Global Education.

- The synthesis process was interdisciplinary. It was not a systematic review drawing on specific academic databases. Instead, many of the empirical studies cited here are drawn from citation tracing of relevant syntheses from several social science disciplines (including comparative education, public management, development economics, and political science).[11]

- In addition to published academic research and 'grey' literature, this synthesis draws on field observations and conversations with middle–tier officials and with staff of implementer organisations during a field visit to India in early 2025. This field visit directly informed the final version of the entry points and the detailed examples of the entry points in action (see the forthcoming insight note).

## What this synthesis does (and doesn't do)

Figure 2 shows the four entry points identified in this synthesis for supporting middle–tier officials in foundational learning reforms: equip, connect, inform and empower. The four entry points are meant to support those designing, funding, implementing and studying foundational learning programmes in their efforts to develop evidence–based ways to maximise the role of the middle tier.

- The entry points do not offer a step–by–step guide for supporting middle–tier officials in education. The four entry points are a set of strategies rather than a sequence of actions. Which entry point(s) to prioritise in a particular foundational learning reform is an open, context–specific question.

- The entry points (equip, connect, inform and empower) are designed to be a heuristic — an easy–to–remember rule of thumb that is concrete enough to provide practical guidance but open–ended enough to be useful in varied contexts.

- Holding the four entry points together in a memorable rule of thumb matters because the entry points are complementary. To give an illustrative example, informing middle–tier officials about progress toward foundational learning goals may have little effect on their day–to–day practice if they are not equipped with skills in data utilisation and empowered to adapt their duties in response to such data. Other examples of complementarity between the entry points appear throughout this synthesis.

> The four entry points are meant to support those designing, funding, implementing, and studying foundational learning programmes.

11 Key syntheses used in citation tracing included: Asim, M., Mundy, K., Manion, C., & Tahir, I. (2023). The "Missing Middle" of Education Service Delivery in Low- and Middle-Income Countries. Comparative Education Review, 67(2), 353–378. Bell, S. (2024). The Middle Tier's Role in Education Improvement: Insights from Social Network and Bureaucratic Norms Research. Science of Teaching. Honig, D. (2024). Mission Driven Bureaucrats: Empowering People To Help Government Do Better. Oxford University Press. Besley, T., Burgess, R., Khan, A., & Xu, G. (2022). Bureaucracy and Development. Annual Review of Economics, 14, 397–424. Finan, F., Olken, B. A., & Pande, R. (2017). The Personnel Economics of the Developing State. In Handbook of Economic Field Experiments (Vol. 2, pp. 467–514). Elsevier. Pepinsky, T. B., Pierskalla, J. H., & Sacks, A. (2017). Bureaucracy and Service Delivery. Annual Review of Political Science, 20(1), 249–268.

**Figure 2**    **Entry points for supporting middle–tier officials in improving children's foundational learning.**

## Entry points for supporting middle–tier officials in foundational learning reforms

### Equip

middle–tier officials with the knowledge and resources to work toward foundational learning goals.

### Connect

middle–tier officials to a shared commitment to foundational learning goals.

### Inform

middle–tier officials about progress toward foundational learning goals (eg with student assessment data).

### Empower

middle–tier officials to prioritise and adapt in line with foundational learning goals

This synthesis proceeds as follows:

- Sections 2 to 5 explore each entry point in greater detail. For each entry point, the synthesis first discusses why the entry point matters for supporting middle–tier officials in foundational learning reforms, then provides examples of what the entry point has looked like in practice in education reforms in the Global South, and finally provides additional insights from other sectors that are relevant to education and foundational learning.

- Section 6 describes an example of all four entry points working concurrently during the Tusome structured pedagogy programme in Kenya.

- Section 7 outlines a research agenda for open questions about middle–tier officials and their role in implementing and strengthening foundational learning reforms.

# 2 | Equip middle–tier officials with the knowledge and resources to work toward foundational learning goals

## Why it is important to equip middle–tier officials

In many education systems, middle–tier officials do not receive the training and resources needed to effectively support implementation of foundational learning programmes and reforms.[12] In Nepal, an evaluation of an ineffective teacher training programme found that one contributing factor was that middle–tier trainers had not themselves received training on how to conduct the programme. Moreover, some training centres did not receive the necessary training materials.[13]

More generally, a systematic review of school accountability structures in low– and middle–income countries found that school inspectors do not typically receive appropriate training in school evaluation. This compromises both the usefulness of school evaluations and inspectors' credibility in the eyes of teachers and headteachers.[14] Such credibility deficits can be particularly challenging in settings where middle–tier officials hold lower educational qualifications (eg diplomas rather than undergraduate degrees) than the teachers whom they are supposed to train or supervise.[15] A lack of subject–matter expertise can also dilute the quality of pedagogical feedback that middle–tier officials provide to teachers after classroom observations; while inadequate training in communication skills and data collection and use may weaken other aspects of their roles in support and supervision.[16] Other areas in which middle–tier officials, depending on their roles, may require training include effective management and using research evidence and data.[17]

12 A review of research on the middle–tier education officials in the global south observed that 'More than half of the articles provide evidence on the human, material, and financial constraints faced by the middle tier, in the context of operations, maintenance, and monitoring (e.g., World Bank 2008) and in the delivery of instruction and support (e.g., de Grauwe and Lugaz 2007)' (p. 368) in Asim, M., Mundy, K., Manion, C., & Tahir, I. (2023). The "Missing Middle" of Education Service Delivery in Low– and Middle–Income Countries. Comparative Education Review, 67(2), 353–378.

13 Schaffner, J., Glewwe, P., & Sharma, U. (2021). Why Programs Fail: Lessons for Improving Public Service Quality from a Mixed–Methods Evaluation of an Unsuccessful Teacher Training Program in Nepal (Staff Paper No. P21–3). Department of Applied Economics, University of Minnesota.

14 Spicer, D. E., Ehren, M. C. M., Bangpan, M., Khatwa, M., & Perrone, F. (2016). Under what conditions do inspection, monitoring and assessment improve system efficiency, service delivery and learning outcomes for the poorest and most marginalised? A realist synthesis of school accountability in low– and middle–income countries. EPPI–Centre, Social Science Research Unit, UCL Institute of Education, University College London.

15 eg Kosgey, M. J. C. (2011). Effectiveness of Teacher Advisory Centre Tutors in Curriculum Implementation in Public Secondary Schools: Case of Chepalungu District, Kenya. Educational Research and Reviews, 6(12), 722–725.

16 Shashidhara, S., Joseph, J., Chordiya, A., Garg, S., & Dhand, S. (2024). Understanding the Motivations and Challenges of ARPs in Uttar Pradesh [Diagnostic report]. Centre for Social and Behaviour Change; Language and Learning Foundation.

17 Tournier, B., Godwin, K., Cameron, E., & Lugaz, C. (2025). Leveraging the potential of the middle tier to improve education outcomes: The role of a capacity assessment framework. IIEP–UNESCO.

In contrast, when middle–tier officials receive high–quality, well–calibrated training, this can yield longer-term benefits: a study in two positive–deviant districts in Rwanda found that sector education inspectors continued in 2024 to practise skills in problem solving and constructive feedback that they had learned under a 2016—2021 foundational learning programme.[18]

Besides training, middle-tier officials also need tools and technical guidance, such as protocols and checklist for carrying out certain duties effectively.[19] Other resources that middle–tier officials may need – and, in many cases, may lack – include vehicles, fuel allowances, computers, telephones, and office space – for conducting school visits or other responsibilities.[20] Moreover, it is not unusual for budgeted funds to be disbursed to subnational education offices months later than scheduled, or for received funds to fall short of allocated amounts.[21]

Examples of effective programmes that equipped middle–tier education officials with the knowledge and resources to work toward foundational learning goals

This synthesis project did not identify any randomised evaluations comparing treatment arms that differed solely in whether or not middle–tier officials received training and resources to support foundational learning programmes. Nonetheless, efforts to equip middle–tier officials with knowledge and resources have been incorporated into intervention packages that demonstrably improved children's learning even in resource–constrained settings.

> **When middle–tier officials receive high–quality, well–calibrated training, this can yield longer–term benefits.**

18 Beggs, C., & Bell, S. (2024). The Middle Tier and Improving Foundational Literacy Outcomes: New Evidence from Best–Practice Districts in Rwanda. Science of Teaching.
19 For one example, see the review templates and checklists created for middle-tier officials as part of a foundational learning reform in Haryana, India: Srivastava, S., & Acharya, S. (2024, April 3). Enhancing Educational Outcomes through Structured Review Processes: The NIPUN Haryana Story. Central Square Foundation.
20 Asim, M., Bell, S., Boakye-Yiadom, M., Nudzor, H. P., & Mundy, K. (2024). Management Practices and Implementation Challenges in District Education Directorates in Ghana. Educational Administration Quarterly, 60(3), 275—309. de Grauwe, A., Lugaz, C., Tiberius, B., Ledoka, P. J., Tsepa, M., Kayabwe, S., & Asiimwe, W. (2011). Strengthening local actors: The path to decentralizing education: Kenya, Lesotho, Uganda. IIEP–UNESCO. Zubairi, A. (2021). A district level study on the deployment, allocation and utilisation of teachers between and within Malawi's primary schools: An accountability and political settlement approach [PhD thesis, University of Cambridge]. Jaffer, K. (2010). School inspection and supervision in Pakistan: Approaches and issues. PROSPECTS, 40(3), 375—392.
21 Boakye-Yiadom, M., Leaver, C., Mansoor, Z., Iocco, M. P., & Leaver, C. (2023). Management and performance in mid-level bureaucracies: Evidence from Ghanaian education districts (DeliverEd Initiative Working Paper). Leadership for Equity. (2020). Officer's Training Needs Analysis Report 2019. Leadership for Equity. Swift-Morgan, J. (2014). Confronting the Informal in Good Governance: The Case of Decentralised Education–System Reform in Guinea. Development Policy Review, 32(4), 399—425.

- In India, a quasi-experimental (difference-in-difference) evaluation of the Scaling up Early Reading Intervention (SERI) programme in Chhattisgarh and Uttarakhand noted that cluster resource coordinators were given initial training, carefully aligned tools, and ongoing support through monthly discussions about the programme with their managers, alongside a tapering programme of support from external SERI facilitators.[22] This equipped them to effectively monitor and support teachers' delivery of the SERI structured pedagogy programme, which in turn significantly raised children's early-grade reading outcomes.[23]

- Elsewhere in India, Odisha's STARS targeted instruction intervention that successfully improved children's learning included equipping (and connecting) of circuit supervisors in addition to equipping of teachers and headteachers.[24]

- In Argentina, an experimental evaluation found that giving headteachers diagnostic feedback on children's learning levels resulted in more grade repetition (ie worsened children's outcomes); but combining the diagnostic feedback with a package of management training for headteachers and block-level supervisors along with an online dashboard for monitoring progress instead reduced grade repetition. However, there were no significant effects on test scores.[25]

- In a pair of major studies of effective foundational learning programmes implemented at scale in the Global South, 'structured training manuals' to equip those who delivered teacher training were among the most frequently implemented elements of the eight literacy programmes and six numeracy programmes analysed. These training manuals included elements such as step-by-step guidelines for conducting training sessions, activities for the trainer and the trainee, explanations of key concepts, and clear delineations of roles to support middle-tier officials in delivering training.[26]

22 Stern, J., Jukes, M., DeStefano, J., Mejia, J., Dubeck, P., Carrol, B., Jordan, R., Gatuyu, C., Nduku, T., Van Keuren, C., Punjabi, M., & Tufail, F. (2023). Learning at Scale: Final Report. RTI International.

23 Joddar, P. (2018). Impact Evaluation of the Literacy Program–Partnership Approach under Scaling up Early Reading Intervention (SERI) funded by USAID 2018: Endline Evaluation Report for Chhattisgarh and Uttarakhand. Room to Read.

24 Beg, S. A., Fitzpatrick, A. E., Kerwin, J. T., Lucas, A., & Rahman, K. W. (2024). When Given Discretion Teachers Did Not Shirk: Evidence from Remedial Education in Secondary Schools (Working Paper No. 33242). National Bureau of Economic Research.

25 de Hoyos, R., Djaker, S., Ganimian, A. J., & Holland, P. A. (2024). The impact of combining performance-management tools and training with diagnostic feedback in public schools: Experimental evidence from Argentina. Economics of Education Review, 99, 102518.

26 Stern, J., Jukes, M., DeStefano, J., Mejia, J., Dubeck, P., Carrol, B., Jordan, R., Gatuyu, C., Nduku, T., Van Keuren, C., Punjabi, M., & Tufail, F. (2023). Learning at Scale: Final Report. RTI International. Stern, J., Jordan, R., Sitabkhan, Y., Ralaingita, W., Carrol, B., Betts, K., Jukes, M., Norman, J., Dubeck, P., DeStefano, J., Mejia, J., Bahrawar, L., Cummiskey, C., Jalloh, N., Pamel, J., & Momanyi, R. (2023). Numeracy at Scale: Final Report. RTI International.

Section 6 offers a further example of equipping middle-tier officials as part of the Tusome foundational literacy reform in Kenya.

Apart from these randomised impact evaluations of packaged interventions, there have been internal evaluations of courses or other tools for equipping middle-tier education officials in India and Kenya. While these evaluations did not assess the impact of the programmes on children's learning outcomes, they did find positive effects on middle-tier officials' knowledge, mindsets and performance.[27]

## Additional insights from the evidence base

The research literature indicates two further points for consideration about equipping middle-tier officials. First, in some educational systems, implementing organisations have collaborated with universities to offer accredited qualifications for middle-tier officials. Such courses may provide an avenue for strengthening both the knowledge and the perceived authority of middle-tier officials in providing pedagogical support and advice to teachers. That said, such effects on middle-tier officials' status and on their interactions with teachers does not appear to have been studied systematically thus far and could be an area for further research.

- In South Africa, the non-governmental organisation Funda Wande partnered with Rhodes University to develop an Advanced Certificate in Foundation Phase Literacy Teaching that has since been completed both by school-level staff (eg heads of department) and middle-tier officials (eg subject advisors who work at the provincial and district levels) alongside literacy coaches directly employed by Funda Wande.[28]

- Tertiary-level training programmes have also equipped middle-tier officials in Rwanda to deliver a foundational literacy and numeracy programme, in partnership between the University of Rwanda, the government, and a group of implementing organisations.[29]

27 In India, see: Leadership for Equity. (2022). **LEAD Rapid Impact Evaluation**. Leadership for Equity & Cisco Corporate Social Responsibility. In Kenya, see: Dignitas. (2024). **USTADI Leadership Toolkit Report**. Dignitas.
28 Taylor, N. (2021). **Evaluation of the Advanced Certificate in Foundation Phase Literacy Teaching**. Rhodes University.
29 Page, E., Mugiraneza, J.-P., Rutayisire, J., Keper, L., McAleavy, T., & Jones, C. (2023). **Case study: Leading a culture of collaborative learning through middle-tier reforms in Rwanda**. In B. Tournier, C. Chimier, & C. Jones (Eds.), Leading teaching and learning together: The role of the middle tier (pp. 54–69). IIEP–UNESCO, Education Development Trust. See also Mc Lennan, A., Muller, M., Orkin, M., & Robertson, H. (2018). District support for curriculum management change in schools. In P. Christie & M. Monyokolo (Eds.), Learning about sustainable change in education in South Africa: The Jika iMfundo campaign 2015–2017 (pp. 225–251). Saide.

Second, training programmes for middle-tier officials have the potential to equip them not only with technical knowledge and skills but also with mindsets and habits that are aligned with reform goals.

- For example, in a pilot programme in Jordan, middle-tier supervisors were trained to deliver a supervision cycle (involving diagnostic lesson observation, intervention selection, coaching and evaluation). Initially, some supervisors struggled to shift away from the default of giving top-down authoritative instructions to teachers. However, with support from programme staff, supervisors were eventually able to shift toward a critical friendship that supported teachers rather than dictating to them.[30]

- Beyond the education sector, an experimental evaluation among police officers in Rajasthan found that a soft skills training programme significantly improved officers' politeness to crime victims as well as victims' satisfaction with the police.[31]

- In Mexico City, an experimental evaluation of a procedural justice training programme for police officers and their managers significantly improved both their mindsets and the quality of their interactions with members of the public.[32]

- Similarly, a randomised controlled trial of a training module about problem solving and productivity for professional-grade civil servants in Ghana found improvements in organisational culture — such as teamwork and openness to feedback and to new ideas — within teams in which at least one member had participated in the training.[33]

> **Training programmes for middle-tier officials have the potential to equip them not only with technical knowledge and skills but also with mindsets and habits.**

30 Churches, R., McAleavy, T., Page, E., Keper, L., & Jones, C. (2023). Case study: Evidence-based supervision in the Hashemite Kingdom of Jordan. In B. Tournier, C. Chimier, & C. Jones (Eds.), Leading teaching and learning together: The role of the middle tier (pp. 38–53). IIEP-UNESCO, Education Development Trust.

31 Banerjee, A., Chattopadhyay, R., Duflo, E., Keniston, D., & Singh, N. (2021). Improving Police Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy, and Training. American Economic Journal: Economic Policy, 13(1), 36–66.

32 Canales, R., Santini, J. F., González Magaña, M., & Cherem, A. (2025). Shaping Police Officer Mindsets and Behaviors: Experimental Evidence of Procedural Justice Training. Management Science.

33 Azulai, M., Rasul, I., Rogger, D., & Williams, M. J. (2020). Can training improve organizational culture? Experimental evidence from Ghana's civil service [EDI Working Paper Series]. Economic Development & Institutions.

# 3 | Connect middle–tier officials to a shared commitment to foundational learning goals

## Why it is important to connect middle–tier officials

Several existing theories of motivation, performance, and management emphasise the importance of a sense of mission that is shared with colleagues. For instance, Honig proposes that a key element of effective management in bureaucracies is 'creat[ing] connection to peers and purpose: Bureaucrats are encouraged to connect and feel valuable to other humans through their work, most frequently to coworkers and beneficiaries' (p. 22).[34] Similarly, one component of Hargreaves and Fullan's professional capital framework for transforming teaching is social capital, or 'how the quantity and quality of interactions and social relationships among people affects their access to knowledge and information; their senses of expectation, obligation, and trust; and how far they are likely to adhere to the same norms or codes of behavior' (p. 90).[35] Among the many empirical studies supporting the importance of social commitments is a study of doctors in Tanzania. This study found that doctors significantly improved their performance when randomly assigned to be visited by a research team — implying the influence of social pressure on work effort.[36]

Second, two cases of effective government systems in the Global South likewise suggest that a shared sense of commitment is fundamental to effectiveness. Vietnam's education system achieves student learning outcomes that far exceed what would be typical at Vietnam's level of economic development. One enabler of this success is the multiple, cross–cutting relationships that connect government officials in the middle tier to shared educational goals. Another is a bidirectional relationship wherein policies are transmitted from the national government through district and provinces to schools and feedback is relayed back up through the government.[37] Similarly, the state of Ceará in Brazil's comparatively poor Northeast region received attention in the 1990s after two reformist governors generated outstanding public–sector outcomes. Tendler's landmark

34 Honig, D. (2024). Mission Driven Bureaucrats: Empowering People To Help Government Do Better. Oxford University Press.

35 Hargreaves, A., & Fullan, M. (2012). Professional capital: Transforming teaching in every school. Teachers College Press.

36 Leonard, K. L., & Masatu, M. C. (2010). Using the Hawthorne effect to examine the gap between a doctor's best possible practice and actual performance. Journal of Development Economics, 93(2), 226–234.

37 London, J. (2021). Outlier Vietnam and the Problem of Embeddedness: Contributions to the Political Economy of Learning (RISE Working Paper Series No. 21/062). Research on Improving Systems of Education (RISE). McAleavy, T., Tran, T. H., & Fitzpatrick, R. (2018). Promising practice: Government schools in Vietnam. Education Development Trust.

study of the Ceará reforms found that key factors included: remarkably strong dedication among government officials to their jobs, which was linked to appreciation from the communities they served; public recognition initiatives such as media campaigns and prizes; and state-level facilitation of strong relationships between non-governmental organisations and local governments.[38] Later, the brother of one of these reformist governors would implement similar public recognition approaches when transforming the local education system during his mayoralty in Ceará's fifth largest municipality, Sobral.[39]

However, for middle-tier officials in many education systems, this sense of shared commitment is shaky. Many middle-tier officials are pulled in multiple directions to address varied demands from higher authorities and other stakeholders — without a unifying sense of purpose across these varied demands.[40] One indication of this thinly stretched commitment and capacity is that it is not unusual to see misalignments between middle-tier officials' (often unfeasible) formal responsibilities and their de facto understanding and performance of their roles.[41] Another indication that circumstantial factors may have compromised a shared commitment to systemwide learning goals is that middle-tier officials in some contexts attribute much more blame for children's learning levels to parents than to the school system.[42] This compromised sense of commitment inevitably influences how middle-tier officials perceive and implement the programmes under their purview.[43]

## Examples of effective programmes that connected middle-tier education officials to a shared commitment to foundational learning goals

There are strong arguments for why it is important to connect middle-tier education officials to a shared sense of purpose, as summarised above. However, there has been relatively little scholarly attention to this topic within education in the Global South. Empirical studies in this area include a cross-sectional analysis and small-scale

> Many middle-tier officials are pulled in multiple directions to address varied demands from higher authorities and other stakeholders — without a unifying sense of purpose.

38 Tendler, J. (1997). Good government in the tropics. Johns Hopkins University Press. See also, on Ghana: McDonnell, E. M. (2020). Patchwork Leviathan: Pockets of Bureaucratic Effectiveness in Developing States. Princeton University Press.

39 Crouch, L. (2020). Systems Implications for Core Instructional Support Lessons from Sobral (Brazil), Puebla (Mexico), and Kenya (RISE Insight Series No. 2020/020). Research on Improving Systems of Education (RISE).

40 eg, Attavar, S., DeBacker, H., Kothuri, A., Lima, L., Ohyama, K., Mangla, A., & Tudor, M. (2024). Teacher Mentorship in India: Improving Pedagogy in Government Schools. Swift-Morgan, J. (2014). Confronting the Informal in Good Governance: The Case of Decentralised Education-System Reform in Guinea. Development Policy Review, 32(4), 399–425.

41 eg Adelman, M., & Lemos, R. (2021). Managing for Learning: Measuring and Strengthening Education Management in Latin America and the Caribbean. The World Bank. Asim, M., Bell, S., Boakye-Yiadom, M., Nudzor, H. P., & Mundy, K. (2024). Management Practices and Implementation Challenges in District Education Directorates in Ghana. Educational Administration Quarterly, 60(3), 275–309. Leadership for Equity. (2022). SCERT & DIETs in Tripura: Gaps and Way Forward. Leadership for Equity.

42 eg on district education officers in Bangladesh and Nepal: Sabarwal, S., Asaduzzaman, T. M., & Lnu, D. R. (2020). Can Understanding How Middle Managers Make Decisions Help Design Effective Results-Based Financing Mechanisms in Education? World Bank.

43 For similar arguments about the influence of teachers' perceptions on their practice, see Spillane, J. P., Reiser, B. J., & Reimer, T. (2002). Policy Implementation and Cognition: Reframing and Refocusing Implementation Research. Review of Educational Research, 72(3), 387–431; and Hwa, Y.-Y. (2024). Opportunities for changing teacher norms vary by underlying factors in teachers' selves, situations, standards, and society. Frontiers in Education, 9.

pilot interventions that sought to connect middle-tier officials with colleagues at other levels of the system:

- In Tanzania, a cross-sectional analysis of district education officers found that the management practices that were most positively correlated with district-level exam results involved building collegial connections to shared goals. These practices included building connections with teachers (through frequent school visits) and with other middle-tier officials (through performance reviews, particularly when the manager discusses performance measures with the officer).[44]

- In a South African school district, a three-year university-led programme about leadership for learning brought together district officials and school principals in a series of professional development sessions during the school holidays, with some ongoing support at both the district office and the schools. The effects of this programme on children's learning were not formally evaluated, but qualitative findings include a shift from an initially conflictual relationship between middle-tier officials and principals toward consultative collaboration. One district official said, 'I think I've learned to become a little bit less defensive … I've learned to get more involved with my people … And a very important thing is not to be up there and talk down' (p. 7).[45]

- In the Gambia, workshops were conducted in each region of the country to help school inspectors and supervisors be more democratic rather than hierarchical in their interactions with teachers and principals. Three months after the workshops, middle-tier officials reported having made concrete changes in their relationships with teachers and principals, such as approaching inspections in a consultative, collegial way with prior notice to schools rather than conducting surprise 'gotcha' inspections.[46]

- In Jenahabad district in Bihar, India, a pilot programme for targeting instruction to children's learning levels was driven by a highly motivated district magistrate. One action of this district magistrate was to regularly hold meetings with school-facing middle-tier officials (cluster resource centre coordinators) to get their input on programme implementation and take action accordingly. According to one cluster coordinator, this 'direct access' to the district magistrate, and the fact that he 'listened to [them]' and instructed more senior officials to adapt in response to their input made them feel 'extremely empowered'.[47]

44 Cilliers, J., Dunford, E., & Habyarimana, J. (2022). What Do Local Government Education Managers Do to Boost Learning Outcomes? The World Bank Economic Review, 36(3), 629–645.
45 Naicker, S. R., & Mestry, R. (2015). Developing educational leaders: A partnership between two universities to bring about system-wide change. South African Journal of Education, 35(2), Article 2.
46 Harber, C. (2006). Democracy, development and education: Working with The Gambian inspectorate. International Journal of Educational Development, 26(6), 618–630.
47 pp. 33–34 in Aiyar, Y., Dongre, A. A., & Davis, V. (2015). Education Reforms, Bureaucracy and the Puzzles of Implementation: A Case Study from Bihar (IGC Working Paper No. ID 2695991). International Growth Centre.

See also Section 6 for an example of how middle-tier officials were connected to shared goals under the Tusome structured pedagogy programme in Kenya. For another example of how a shared commitment to foundational learning goals is fostered among teacher mentors in Maharashtra, India, through weekly meetings, formal and informal WhatsApp groups, and other forms of alignment across the municipality, see the companion insight note on examples from India (forthcoming).

## Additional insights from the evidence base

While there has been relatively little research on connecting middle-tier officials in the education sector to a common sense of purpose, there have been many related experimental evaluations in the health sector. Most of these studies have focused on frontline workers, but they are discussed here because frontline healthcare workers typically face the competing priorities, complex responsibilities, and limited resources that affect middle-tier education officials. These studies have explored three types of approaches for fostering such connections.

One approach is creating opportunities to discuss experiences, challenges, and organisational mission with colleagues.

- A randomised controlled trial in Pakistan tested a mission-oriented treatment in which community health workers first watched a video of the district chief describing their common mission and then participated in monthly reflection sessions related to that mission. Those who received the mission-oriented treatment improved their performance significantly more than colleagues in a financial incentive treatment (who only improved their performance on the incentivised metric).[48]

- Similarly, in the United States, emergency services (911) dispatchers who received six weekly emails nudging them to share professional experiences and advice on an anonymous online platform were significantly less likely to experience burnout or to resign from their jobs.[49]

- A related intervention that has been successfully tested in some Global North contexts is putting public-sector workers in direct contact with the beneficiaries they serve.[50]

> **One approach is creating opportunities to discuss experiences, challenges, and organisational mission with colleagues.**

48 Khan, M. Y. (2025). Mission Motivation and Public Sector Performance: Experimental Evidence from Pakistan. American Economic Review, 115(7), 2343–2375.

49 Linos, E., Ruffini, K., & Wilcoxen, S. (2022). Reducing Burnout and Resignations among Frontline Workers: A Field Experiment. Journal of Public Administration Research and Theory, 32(3), 473–488. See also the section titled 'Empowerment through Peer Learning and Accountability' in Chapter 5 of Honig, D. (2024). Mission Driven Bureaucrats: Empowering People To Help Government Do Better. Oxford University Press.

50 For example, on nurses in Italy, see Bellé, N. (2013). Experimental Evidence on the Relationship between Public Service Motivation and Job Performance. Public Administration Review, 73(1), 143–153.

Another approach is generating social recognition incentives for improved performance.

- Such social incentives have led to significant performance gains among part-time community health workers in Guinea-Bissau. In this social incentive programme, high performance led to an award that was presented in a ceremony attended by representatives from local government and international organisations. The award was also announced via text message to the households served by each award-winning worker.[51]

- In Zambia, part-time health workers in HIV prevention sold almost twice as many condoms under a social incentives scheme (where sales were publicly shared on a 'thermometer' display) compared to peers under a financial incentives scheme.[52]

- However, a similar social recognition intervention in two Nigerian states (with public displays of performance 'stars' at health facilities and a public award ceremony for the highest-performing facility) improved performance in one state but had null effects in the other.[53]

A final approach for connecting public-sector workers with a shared sense of commitment is introducing financial incentives that have a collegial component.

- In Sierra Leone one treatment arm of a programme jointly incentivised both middle-tier and frontline officials based on the same metric. This was significantly more effective at increasing the quantity of health visits (without a decline in quality) than performance pay treatments that incentivised either only the frontline worker or only their middle-tier supervisor.[54]

- In Malawi, a performance-based financing programme for local health facilities improved health workers' motivation. However, in-depth interviews indicated that this was not primarily due to individual financial incentives, but rather the facility-level targets and incentives, improved supervision and feedback, refresher training, and improved resource provision that were associated with the programme. These contributed to health workers' professional commitment, self-efficacy, sense of recognition, and teamwork and peer pressure toward a common goal.[55]

> **Other approaches include generating social recognition incentives and introducing financial incentives that have a collegial component.**

51 Fracchia, M., Molina-Millán, T., & Vicente, P. C. (2023). Motivating volunteer health workers in an African capital city. Journal of Development Economics, 163, 103096.

52 Ashraf, N., Bandiera, O., & Jack, B. K. (2014). No margin, no mission? A field experiment on incentives for public service delivery. Journal of Public Economics, 120, 1–17.

53 Gauri, V., Jamison, J. C., Mazar, N., & Ozier, O. (2021). Motivating bureaucrats through social recognition: External validity—A tale of two states. Organizational Behavior and Human Decision Processes, 163, 117–131.

54 Deserranno, E., Caria, S., Castrau, P., & León-Ciliotta, G. (2024). The Allocation of Incentives in Multi-Layered Organizations: Evidence from a Community Health Program in Sierra Leone [Manuscript in preparation]. For a systematic review which finds that collective performance pay schemes and collective-individual hybrid schemes tend to outperform individual schemes, see Wood, S., Leoni, S., & Ladley, D. (2023). Comparisons of the effects of individual and collective performance-related pay on performance: A review. Human Resource Management Review, 33(4), 100982.

55 Lohmann, J., Wilhelm, D., Kambala, C., Brenner, S., Muula, A. S., & De Allegri, M. (2018). 'The money can be a motivator, to me a little, but mostly PBF just helps me to do better in my job.' An exploration of the motivational mechanisms of performance-based financing for health workers in Malawi. Health Policy and Planning, 33(2), 183–191.

# 4 | Inform middle–tier officials about progress toward foundational learning goals

## Why it is important to inform middle–tier officials

Middle–tier officials work extensively with information. Yet this typically involves channelling information from higher authorities onward to schools and channelling the required reports back up to higher authorities. This process often occurs without officials receiving meaningful feedback about how their own work is contributing to foundational learning goals.[56]

Although it is commonly absent, meaningful information for middle–tier officials about progress on children's learning can strengthen their contributions to foundational learning in a few ways. First, regularly updated information can foster a sense of connection to shared goals, whether intrinsically or through extrinsic social incentives (as discussed under 'Connect' above). Second, relevant and timely feedback is an important factor in learning and performance improvement.[57] Third, in some education systems, the lack of regular information on learning may contribute to tendencies among middle–tier officials to respond to particularly vocal parents rather prioritising the classrooms and schools that need the most support.[58] Moreover, recent surveys have found that senior officials, members of parliament, and teachers across a range of countries in the Global South tend to significantly overestimate children's learning levels in their contexts.[59] In the absence of good information about children's learning, it is likely that many middle-tier officials have similarly miscalibrated perceptions, which may in turn compromise their decisions and priorities.

> Meaningful information for middle–tier officials about progress on children's learning can strengthen their contributions to foundational learning in a few ways.

56 See, for example: Aiyar, Y., & Bhattacharya, S. (2016). The Post Office Paradox: A Case Study of the Block Level Education Bureaucracy. Economic and Political Weekly, 51(11), 61–69. Asim, M., Bell, S., Boakye-Yiadom, M., Nudzor, H. P., & Mundy, K. (2024). Management Practices and Implementation Challenges in District Education Directorates in Ghana. Educational Administration Quarterly, 60(3), 275–309.

57 Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. Psychological Review, 100(3), 363–406. Wisniewski, B., Zierer, K., & Hattie, J. (2020). The Power of Feedback Revisited: A Meta-Analysis of Educational Feedback Research. Frontiers in Psychology, 10.

58 For such findings from a survey of 220 middle–tier education officials in Bangladesh and Nepal, see Sabarwal, S., Asaduzzaman, T. M., & Lnu, D. R. (2020). Can Understanding How Middle Managers Make Decisions Help Design Effective Results-Based Financing Mechanisms in Education? World Bank.

59 Crawfurd, L., Hares, S., Le, T., & Sandefur, J. (2024). How to Fix Global Education: A Survey of National Policymakers in Developing Countries. Center for Global Development. Yarrow, N., Cahu, P., Breeding, M. E., & Afkar, R. (2024). What I really want: Policy maker views on education in Southeast Asia. International Journal of Educational Development, 108, 103054. Djaker, S., Ganimian, A. J., & Sabarwal, S. (2024). Out of sight, out of mind? The gap between students' test performance and teachers' estimations in India and Bangladesh. Economics of Education Review, 102, 102575. Wadmare, P., Nanda, M., Sabates, R., Sunder, N., & Wadhwa, W. (2022). Understanding the accuracy of teachers' perceptions about low achieving learners in primary schools in rural India: An empirical analysis of alignments and misalignments. International Journal of Educational Research Open, 3, 100198.

## Examples of effective programmes that informed middle-tier education officials about progress toward foundational learning goals

There have been two rigorously evaluated interventions that used digital technology to inform middle-tier officials in the Global South about progress toward learning goals. The first intervention below was purely an informational treatment. The other intervention bundled informational support for middle-tier officials with other programme elements.

- In Tanzania, children's literacy outcomes significantly improved when middle-tier officials (ward education officers) received SMS messages containing tailored recommendations for specific schools that they were responsible for visiting. The recommendations in the SMS messages drew on school inspection reports but were more concise and were transmitted more rapidly. Although middle-tier officials who received these SMS messages did not visit schools more frequently, headteachers reported that officials were more likely to follow up on the recommendations, organise teacher training workshops, and take action to improve student learning. Notably, this intervention was highly cost-effective.[60]

- An informational intervention in Argentina reduced grade repetition although it had no significant effect on test scores. The intervention targeted both headteachers and block-level supervisors by informing them (through diagnostic feedback on student's learning levels and an online dashboard for monitoring progress) and equipping them (through management training).[61]

See also Section 6 for an example of how the Tusome structured pedagogy programme in Kenya used tablets to routinely inform middle-tier officials of progress toward foundational learning goals. For an example of associate block resource coordinators in Haryana, India, are regularly informed about foundational learning outcomes and other key indicators, see the companion insight note on examples from India (forthcoming).

60 Cilliers, J., & Habyarimana, J. (2023). Tackling Implementation Challenges with Information: Experimental Evidence from a School Governance Reform in Tanzania (RISE Working Paper Series No. 23/142). Research on Improving Systems of Education (RISE).

61 de Hoyos, R., Djaker, S., Ganimian, A. J., & Holland, P. A. (2024). The impact of combining performance-management tools and training with diagnostic feedback in public schools: Experimental evidence from Argentina. Economics of Education Review, 99, 102518.

## Additional insights from the evidence base

The wider research literature offers more examples of informational interventions that improved the performance of public-sector workers at different levels of the bureaucracy.

- Some of these programmes relied on digital technology. In two north Indian states, a smartphone app that gave middle-tier officials and/or their managers (depending on the treatment arm) up-to-date implementation information about a rural employment programme led to higher rates of productivity by these officials.[62]

- In Punjab, Pakistan, a smartphone app that improved information flows between health inspectors and executive district health officials doubled the proportion of rural health clinics that had been inspected (although this improvement diminished over time).[63]

- In Peru, an SMS messaging campaign that targeted school principals with different sets of behavioural nudges led to higher rates of compliance with on-time expenditure reporting.[64]

- Beyond digital technology, a programme of information- and connection-oriented workshops for frontline health workers in Guinea-Bissau led to large increases in the amount of time they spent with households. These in-person workshops communicated information on programme-wide performance and encouraged workshop participants to share reflections about the programme's achievement of its goals.[65]

However, alongside these promising findings, at least two evaluations of public-sector informational interventions in the Global South have found negative side effects. These examples indicate the importance of careful programme design to inform middle-tier officials of progress while minimising counterproductive side effects.

- In Tanzania, a low-stakes accountability intervention publicised information about the average exam scores, within-district ranking, and national ranking of each primary school. While it led to student learning gains among low-ranked schools within each district, it also increased student dropout rates in these schools.[66]

> **These examples indicate the importance of careful programme design to inform middle-tier officials of progress while minimising counter productive side effects.**

62 Dodge, E., Neggers, Y., Pande, R., & Troyer-Moore, C. (2025). Updating the State: Information Acquisition Costs and Social Protection Delivery [Manuscript in preparation].

63 Callen, M., Gulzar, S., Hasanain, A., Khan, M. Y., & Rezaee, A. (2020). Data and policy decisions: Experimental evidence from Pakistan. Journal of Development Economics, 146, 102523.

64 Dustan, A., Hernandez-Agramonte, J. M., & Maldonado, S. (2023). Motivating bureaucrats with behavioral insights when state capacity is weak: Evidence from large-scale field experiments in Peru. Journal of Development Economics, 160, 102995.

65 Fracchia, M. (2023). Does Performance Evidence Motivate? A Field Experiment in Guinea-Bissau's Health Sector [Manuscript in preparation].

66 Cilliers, J., Mbiti, I. M., & Zeitlin, A. (2021). Can Public Rankings Improve School Performance?: Evidence from a Nationwide Reform in Tanzania. Journal of Human Resources, 56(3), 655–685.

- In Bangladesh, a land records intervention included monthly scorecards about junior bureaucrats' absolute and comparative speed of processing records, which were sent to each bureaucrat and their supervisor. While this led to faster delivery speeds, it also increased bribe-taking by high-performing bureaucrats.[67]

A further finding from social network analysis is that informal channels of information exchange may matter as much as formal channels.[68] This finding, as with other research discussed in this section, implies a link between the entry points of informing and connecting middle-tier officials. In this case, social network analysis suggests potential gains if education reformers and middle-tier managers concurrently build formalised channels for informing middle-tier officials while fostering collegial connections that can facilitate informal exchanges of information. In some contexts, social messaging mobile apps such as WhatsApp have provided a low-cost mechanism for such informal communication within the middle tier as well as between middle-tier officials and teachers.[69]

67 Mattsson, M. (2025). Information Systems, Service Delivery, and Corruption: Evidence from the Bangladesh Civil Service. American Economic Journal: Applied Economics, 17(3), 414–445.

68 Bell, S. (2024). The Middle Tier's Role in Education Improvement: Insights from Social Network and Bureaucratic Norms Research. Science of Teaching.

69 See, for example, the use of WhatsApp groups by South African subject advisors in de Kock, T., Paterson, A., & Shishenge, N. (2025). Dynamics of middle tier support in the South African education system: Contextual and institutional influences. The Learning Generation Initiative at Education Development Center.

# 5 │ Empower middle–tier officials to prioritise and adapt in line with foundational learning goals

## Why it is important to empower middle–tier officials

Empowering middle–tier officials to prioritise and adapt in line with foundational learning goals is perhaps the most contentious of the four entry points. While there are strong arguments for flexibility and adaptation to meet clearly defined goals,[70] there are also legitimate concerns about empowering middle–tier officials when they are not adequately connected, equipped, or informed to act on these goals. Similarly, research on pedagogical autonomy for teachers in low–resource contexts has had mixed results (see 'Additional insights from the evidence base' below). Nonetheless, the balance of the evidence indicates that empowerment to prioritise and adapt can be critical for middle–tier officials to optimally pursue foundational learning goals, particularly when the other entry points are in place.[71]

The value of empowering middle-tier officials to prioritise and adapt is supported by a range of empirical studies. Public management research drawing on large–scale surveys and administrative data in Ghana and Nigeria finds that giving discretion and autonomy to bureaucrats is correlated with higher rates of task completion, especially on tasks that are complex or ambiguous.[72] In education, ethnographic work in four Indian states showed that deliberative, problem–based bureaucratic norms are more effective than legalistic, rule–based norms in facilitating effective implementation of complex tasks within education service delivery.[73] In Ghana, large–scale surveys of district education offices found that management practices oriented toward problem solving and adaptation were associated

70 See, for example: Honig, D. (2024). Mission Driven Bureaucrats: Empowering People To Help Government Do Better. Oxford University Press. Hargreaves, A., & Fullan, M. (2012). Professional capital: Transforming teaching in every school. Teachers College Press. Andrews, M., Pritchett, L., & Woolcock, M. (2017). Building state capability: Evidence, analysis, action. Oxford University Press.

71 Note that this does not mean unfettered autonomy, but rather the authority to work responsively toward organisational goals. See also Fukuyama's 'inverted U' hypothesis, which proposes that both too little and too much bureaucratic autonomy is bad for government quality. Rather, at the sweet spot for government quality, bureaucratic agencies have both the autonomy needed to innovate and the oversight needed to keep them accountable. Bersch, K., & Fukuyama, F. (2023). Defining Bureaucratic Autonomy. Annual Review of Political Science, 26(Volume 26, 2023), 213–232.

72 Rasul, I., & Rogger, D. (2018). Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service. The Economic Journal, 128(608), 413–446. Rasul, I., Rogger, D., & Williams, M. J. (2021). Management, Organizational Performance, and Task Clarity: Evidence from Ghana's Civil Service. Journal of Public Administration Research and Theory, 31(2), 259–277. See also, in political science, Ang's study of China's economic growth, which concludes that 'the underlying "cause" of economic development, if indeed we had to name one, is the construction of an adaptive environment that empowers relevant actors [in both state institutions and private markets] to improvise solutions to continuously evolving problems' (p. 223 in Ang, Y. Y. (2016). How China Escaped the Poverty Trap. Cornell University Press).

73 Mangla, A. (2022). Making Bureaucracy Work: Norms, Education and Public Service Delivery in Rural India. Cambridge University Press. See also Zacka's arguments about the importance of pluralism rather than rigidity to enable street-level bureaucracies to flexibly respond to a wide range of normative demands. Zacka, B. (2017). When the State Meets the Street: Public Service and Moral Agency. Harvard University Press.

with higher job satisfaction among middle-tier officials, lower absenteeism among teachers, and less off-task behaviour among students during classroom lessons.[74] Similarly, a study by UNESCO-IIEP and the Education Development Trust of middle-tier officials in five education systems (Rwanda, Delhi, Jordan, Shanghai, Wales) concluded that 'a critical success factor was the empowering culture developed by policy-makers and non-state actors … a culture of trust and a sense that middle-tier actors were being given autonomy to use their professional judgement in improving teaching and learning' (pp. 101–102).[75]

Currently, middle-tier officials in many Global South education systems do not benefit from either clear prioritisation of foundational learning goals or the authority to adapt. First, the allocation of responsibilities is often unclear. A survey of national, subnational, and local education officials in in Brazil, the Dominican Republic, Guatemala and Peru found significant mismatches between officially allocated tasks and functions at each administrative level and officials' understandings of their allocated responsibilities.[76] Second, middle-tier officials typically have an infeasible number of responsibilities, and they may be expected to prioritise exam results and exam-year cohorts over foundational learning and early primary grades.[77] Moreover, even if they are expected to prioritise foundational learning goals, they may not have the authority to do so. A study of decentralisation reforms in Kenya, Lesotho, and Uganda found that district education officers are expected to act strategically but do not have the autonomy to define their own budgets or manage their own staff in line with strategic priorities. Accordingly, their daily priorities default to the less goal-oriented responsibility to conduct administrative tasks and monitoring.[78] Similarly, a study of civil servants in Ghana found that bureaucrats have innovative ideas for performance improvement, but such innovation is constrained by resistance from hierarchy-oriented managers.[79] Excessive hierarchical constraints can have downstream effects: an ethnographic study of a foundational learning reform in Delhi, India, observed that middle-tier officials

> **Middle-tier officials in many global south education systems do not benefit from either clear prioritisation of foundational learning goals nor the authority to adapt.**

74 Boakye-Yiadom, M., Leaver, C., Mansoor, Z., Iocco, M. P., & Leaver, C. (2023). Management and performance in mid-level bureaucracies: Evidence from Ghanaian education districts (DeliverEd Initiative Working Paper).
75 Tournier, B., Chimier, C., & Jones, C. (Eds.). (2023). Leading teaching and learning together: The role of the middle tier. IIEP-UNESCO, Education Development Trust.
76 See pp. 54–58 in Adelman, M., & Lemos, R. (2021). Managing for Learning: Measuring and Strengthening Education Management in Latin America and the Caribbean. The World Bank.
77 eg de Kock, T., Paterson, A., & Shishenge, N. (2025). Dynamics of middle tier support in the South African education system: Contextual and institutional influences. The Learning Generation Initiative at Education Development Center. Asim, M., Bell, S., Boakye-Yiadom, M., Nudzor, H. P., & Mundy, K. (2024). Management Practices and Implementation Challenges in District Education Directorates in Ghana. Educational Administration Quarterly, 60(3), 275–309.
78 de Grauwe, A., Lugaz, C., Tiberius, B., Ledoka, P. J., Tsepa, M., Kayabwe, S., & Asiimwe, W. (2011). Strengthening local actors: The path to decentralizing education: Kenya, Lesotho, Uganda. IIEP-UNESCO. See also: Aiyar, Y., & Bhattacharya, S. (2016). The Post Office Paradox: A Case Study of the Block Level Education Bureaucracy. Economic and Political Weekly, 51(11), 61–69. Shashidhara, S., Joseph, J., Chordiya, A., Garg, S., & Dhand, S. (2024). Understanding the Motivations and Challenges of ARPs in Uttar Pradesh [Diagnostic report]. Centre for Social and Behaviour Change; Language and Learning Foundation.
79 Williams, M. J., & Yecalo Tecle, L. (2020). Innovation, voice, and hierarchy in the public sector: Evidence from Ghana's civil service. Governance, 33(4), 789–807.

who were subject to frequent top-down demands would themselves impose rigid demands on teachers and headteachers.[80]

## Examples of effective programmes that empowered middle-tier education officials to prioritise and adapt in line with foundational learning goals

Two rigorously evaluated interventions have found student learning gains resulting from programmes that empowered middle-tier education officials with the autonomy to work flexibly toward clearly defined goals.

- A public-private partnership in Brazil introduced a package of supports — including the establishment of a local supervisor who supports and monitors schools; management training for actors at different levels (equip); and regular meetings between school principals, local supervisors, and regional leaders (connect) — to enable an adaptive Plan-Do-Study-Act cycle that aims to improve student outcomes (empower). The experimentally evaluated intervention saw significant gains in mathematics and Portuguese language proficiency.[81]

- In Colombia, a quasi-experimental analysis of a policy granting education policy autonomy to larger municipalities found that such municipalities channelled a larger proportion of local taxes toward education, hired teachers who were more educated and scored higher on competency tests, and raised both student enrolment and student test scores.[82]

Section 6 offers a further example of how middle-tier officials were empowered to prioritise their instructional support mandate under the Tusome programme in Kenya. For another example of how some states in India have created new cadres of middle-tier officials who are mandated to focus on foundational learning goals, see the companion insight note on examples from India (forthcoming).

## Additional insights from the evidence base

In addition to these studies of the middle tier in education, some experimental and quasi-experimental studies have found performance gains from empowering other public-sector actors with goal-oriented autonomy.

- In Pakistan, a randomly selected set of procurement officers were granted more autonomy over the purchasing process, resulting in a reduction in prices paid.[83]

> Experimental and quasi-experimental studies have found performance gains from empowering public-sector actors with goal-oriented autonomy.

80 Aiyar, Y. (2024). Lessons in State Capacity from Delhi's Schools. Oxford University Press. (earlier open-access version.)
81 Paes de Barros, R., Carvalho, M. de, Franco, S. S. O., Garcia, B., Henriques, R., & Machado, L. (2019). Assessment of the Impact of the Jovem de Futuro Program on Learning. The World Bank.
82 Elacqua, G., Munevar, I., Sanchez, F., & Santos, H. (2021). The impact of decentralized decision-making on student outcomes and teacher quality: Evidence from Colombia. World Development, 141, 105378.
83 Bandiera, O., Best, M. C., Khan, A. Q., & Prat, A. (2021). The Allocation of Authority in Organizations: A Field Experiment with Bureaucrats. The Quarterly Journal of Economics, 136(4), 2195–2242.

- In India, managers of certain profitable state-owned enterprises were awarded autonomy over certain strategic decisions, resulting in gains in profitability, productivity, and sales.[84]

- Experimental studies of middle-tier officials responsible for monitoring performance in other sectors — specifically, supervisors of agricultural extension agents in Paraguay[85] and inspectors of industrial plants in Gujarat, India[86] — found that these officials targeted their resources more effectively when given discretion rather than when required to distribute these resources randomly.

That said, research on empowering frontline bureaucrats with autonomy has had mixed results. Evaluations of new pedagogical programmes have found that giving teachers flexibility to decide the extent to which they implement the new programme in each lesson sometimes, but not always, has positive effects on children's learning.

- Positive effects were seen among teachers delivering technology-facilitated targeted instruction programmes in Pakistan[87] and in Kenya.[88]

- A study in Ethiopia, Kenya, Malawi, and Uganda found that most teachers' adaptations of pedagogical materials led to less effective classroom practices.[89]

- A study of a remedial education bootcamp in Odisha, India, found that teachers were equally effective at improving student learning whether they were expected to implement a standardised bootcamp or they were given flexibility in implementing the bootcamp. In practice, independent observations found that 57% of teachers in both treatment arms were adapting the daily timetable. That is, both groups of teachers were exercising autonomy, and both groups were raising students' learning.[90]

84 Kala, N. (2019). The Impacts of Managerial Autonomy on Firm Outcomes (Working Paper No. 26304). National Bureau of Economic Research.

85 Dal Bó, E., Finan, F., Li, N. Y., & Schechter, L. (2021). Information Technology and Government Decentralization: Experimental Evidence From Paraguay. Econometrica, 89(2), 677–701.

86 Duflo, E., Greenstone, M., Pande, R., & Ryan, N. (2018). The Value of Regulatory Discretion: Estimates from Environmental Inspections in India. Econometrica, 86(6), 2123–2160.

87 Andrabi, T. (2024, September 24). What Works Hub for Global Education Pakistan Country Research Team Proposal [Conference presentation]. What Works Hub for Global Education Annual Conference, Oxford, United Kingdom.

88 Daltry, R. (2024, September 26). Digital personalised learning in Kenya: Findings from a multi-strand implementation research study [Conference presentation]. What Works Hub for Global Education Annual Conference, Oxford, United Kingdom.

89 Beg, S. A., Fitzpatrick, A. E., Kerwin, J. T., Lucas, A., & Rahman, K. W. (2024). When Given Discretion Teachers Did Not Shirk: Evidence from Remedial Education in Secondary Schools (Working Paper No. 33242). National Bureau of Economic Research.

90 Piper, B., Sitabkhan, Y., Mejia, J., & Betts, K. (2018). Effectiveness of Teachers' Guides in the Global South: Scripting, Learning Outcomes, and Classroom Utilization. RTI Press.

Other studies of frontline bureaucrats indicate that enabling conditions — related to the entry points of equipping and connecting — may influence how they respond to empowerment.

- In Brazil, teachers in a randomly selected group of schools were given autonomy to introduce classroom pedagogical innovations together with technical support and earmarked funding, resulting in higher test scores and less grade repetition.[91]

- In Indonesia, teachers who were given autonomy in choosing professional development modules benefitted more from the programme when supported by school leadership to reflectively identify their areas for growth.[92]

- In Pakistan, nurses who had a higher-quality, trusting relationship with their line manager were more likely to have a stronger sense of vocation and to deviate from rules in goal-aligned ways.[93]

91 Piza, C., Zwager, A., Ruzzante, M., Dantas, R., & Loureiro, A. (2024). Teacher-led innovations to improve education outcomes: Experimental evidence from Brazil. Journal of Public Economics, 234, 105123.
92 Arif, S., Pramana, R. P., Rarasati, N., & Winarti, D. W. (2022). Nurturing Learning Culture among Teachers: Demand-Driven Teacher Professional Development and the Development of Teacher Learning Culture in Jakarta, Indonesia (RISE Working Paper Series No. 22/117). Research on Improving Systems of Education (RISE).
93 Irshad, M., Bartels, J., Majeed, M., & Bashir, S. (2022). When breaking the rule becomes necessary: The impact of leader-member exchange quality on nurses pro-social rule-breaking. Nursing Open, 9(5), 2289–2303.

# 6 │ An example of equipping, connecting, informing, and empowering in practice: Curriculum support officers implementing the Tusome structured pedagogy programme in Kenya

Now that the previous sections have described each of the four entry points individually, this section will explore an example of an effective programme in which all four entry points for supporting middle-tier officials operated concurrently. To highlight the perspective of implementers, this section quotes directly from people who implemented the programme or who conducted interviews or field observations with programme implementers.[94]

The Tusome (Kiswahili: 'Let's read') structured pedagogy programme for early-grade literacy in Kenya was implemented in Kenyan schools between 2015 and 2022, eventually reaching national scale.[95] Tusome demonstrably improved children's learning outcomes.[96]

Middle-tier officials called curriculum support officers (CSOs) played a pivotal role in programme implementation in public schools. They supported school-level delivery through teacher training, in-school coaching, monitoring, and meeting facilitation. In turn, wider programme structures supported curriculum support officers to fulfil their roles in the programme.

94 The quotes in this section draw on the following papers: Piper, B. (2022). Institutionalizing Tusome in Kenya: Promise and pitfalls (Country Case Study Prepared for the Global Education Monitoring Report No. ED/GEMR/MRT/2022/SL/P6). GEM Report UNESCO. Piper, B., Destefano, J., Kinyanjui, E. M., & Ong'ele, S. (2018). Scaling up successfully: Lessons from Kenya's Tusome national literacy program. Journal of Educational Change, 19(3), 293–321. Stern, J., Jukes, M., DeStefano, J., Mejia, J., Dubeck, P., Carrol, B., Jordan, R., Gatuyu, C., Nduku, T., Van Keuren, C., Punjabi, M., & Tufail, F. (2023). Learning at Scale: Final Report. RTI International. Kaye, T. (2021). Educational technology to improve capacity — Integrative adaptive education programmes in public school in Kenya. In M. Ehren & J. Baxter (Eds.), Trust, Accountability and Capacity in Education System Reform: Global Perspectives in Comparative Education (pp. 182–200). Routledge.
95 Kayton, H., & Kaffenberger, M. (2025). The path to scale: Navigating the scaling of structured pedagogy programmes (WWHGE Insight Note No. 2025/001). What Works Hub for Global Education.
96 Keaveney, E., Fierros, C., Rigaux, A., & Menendez, A. (2020). Tusome External Evaluation: Endline Report. USAID.

Under Tusome, curriculum support officers were **equipped** through practical training sessions and the provision of a tablet containing various programme-related tools. They also received a travel allowance for visiting schools. For instance:

'... CSOs were provided **the exact same several day training that they then would provide to the teachers** ... In addition, they had **an additional day of training** that would provide coaches with practice and support on implementing the skills of coaching, including the use of the tablet-based instructional tool and the methods of giving supportive feedback.' (Piper, 2022, p. 6)

'... the Tusome program had **a significant focus on practice, or microteaching**, in trainings for teachers and for the CSOs ... "Yes [the Tusome training was] different. [In previous trainings] the facilitator was just in front giving instructions, no microteaching. Tusome can ask questions [like,] what about when a learner does this...you do this way." (Coach, Tusome).' (Stern et al., 2023, p. 176)

'Each CSO was equipped with **a tablet with several resources**. ... **to simplify the task of providing instructional support**. The tool embedded the teachers' guide and lesson plans into the app, so that once the coach entered which lesson was being taught, they could easily review what lesson plan the teacher was implementing.' (Piper, 2022, pp. 5–6)

'... The inputs and resources were especially appreciated at the county and subcounty level. ... "Tusome has really helped. In each month up to last September, they **gave [transportation] fare reimbursement. Helped to fuel our movement**...." (CSO, Nyamira County, Kenya).' (Stern et al., 2023, pp. 225–226)

These resources were provided in ways that also fostered a sense of **connection**. For example, professional development support was ongoing rather than one-off. Travel reimbursements were linked to a key indicator within the programme's theory of change. This led curriculum support officers, teachers, and others in the system to feel mutually responsible for children's learning.

'This training played an important role in coaches accepting the program and being motivated to carry out activities. **Ongoing support was helpful and particularly welcomed** … "Other programs do [training] and don't follow up when they are done, not like RTI who still comes to support, continues to hold our hands, it seems to be a part of them. RTI will visit all or most of the stations." (Trainer, Tusome).' (Stern et al, 2023, p. 186)

'…**constant communication** was a theme that ran through many of the responses and was seen as a success factor by interviewees. … interviews referenced "constant dialogue with the program," "practical ways of communication," and "constant interaction with Tusome."' (Stern et al, 2023, pp. 186, 192–193)

'… the Tusome coaching system utilized **a transport reimbursement strategy that incentivized observations** cost-effectively. … the Tusome model reimbursed coaches based on the percentage of teachers in the zone that were observed with a valid observation within the month.' (Piper, 2022, p. 7–8)

'… one of Tusome's most important contributions to Kenya's education system, was fostering a positive approach to accountability. … This positive approach transformed relationships, particularly between CSOs and teachers. The relationship now focuses on the growth and learning and rests upon **mutual accountability whereby both parties are jointly responsible for learning outcomes**.' (Kaye, 2021, p. 196)

In turn, this sense of connection was supported and sustained by consistent, multilevel flows of information. Curriculum support officers were kept **informed** through a set of complementary channels operating on different cadences.

'When undertaking coaching visits, CSOs used the tablet's student assessment function to assess learning, **providing CSOs with insights into students' progress**. The outcomes combined with lesson observations to inform discussions with teachers about pedagogical practices.' (Kaye, 2021, p. 196)

'...each CSO [got] **feedback every month (or two)** … Based on previous experience, this set of activities for each coach was focused on instructional quality and designed to be supportive rather than punitive.' (Piper, 2022, p. 5)

'Formal communications usually involved circulars or memos, while less-formal communications were disseminated through e-mail, phone, and WhatsApp. … **WhatsApp communications were used for communications reminding CSOs** of trainings, how to use books, etc.' (Stern et al, 2023, p. 192)

Finally, curriculum support officers were able to prioritise and respond to all of these supports because they were officially **empowered** to prioritise instructional support for foundational learning goals rather than administration. These prioritised mandates resulted from Tusome's predecessor programme, called PRIMR.[97]

'Under the PRIMR pilot program, the project supported the Teachers' Service Commission to evaluate and reform the role of the TAC Tutors (now CSOs). In 2016, using **a new job description for CSOs**, the TSC re-interviewed and rehired CSOs under a job description **that focused more specifically on instructional support**. This job description emphasized visiting schools regularly, observing teachers' lessons, and providing constructive feedback on their instructional practice—a significant departure from the previous de facto role of CSOs that stressed supervising school administration.' (Piper et al, 2018, p. 305)

97 Similarly, in Ghana, the role of Circuit Supervisors was redefined as School Improvement Support Officers, to place greater weight on instructional support rather than monitoring and administration. Bell, S. (2025). **Understanding the competing logics of district education office work: The case of Ghana.** International Journal of Educational Development, 113, 103219. See also Box 9. Examples from India: Creating new cadres of teacher mentors who are empowered with prioritised mandates to act and adapt in pursuit of foundational learning goals.

# 7 | A research agenda for understanding and supporting the role of middle–tier officials in improving foundational learning for all children

This synthesis has found that there is a large volume of existing research that can inform efforts to support middle-tier officials in cultivating foundational learning by equipping, connecting, informing and empowering them. However, there have been relatively few rigorously evaluated interventions specifically targeting these entry points for supporting middle-tier education officials.

More generally, there is insufficient research on middle–tier education officials in the Global South, with one systematic review finding only 64 such articles in the academic and grey literature between 2004 and 2021. Moreover, just over a third of these studies addressed the role of middle–tier officials in contributing to children's learning outcomes. That said, the same review found that the number of studies about middle–tier officials in the Global South has been steadily increasing in recent years (albeit from a very low baseline).[98] Efforts to develop this area of knowledge include UNESCO–IIEP's work on a capacity assessment framework for the middle tier, which was recently piloted in Pakistan.[99]

Strengthening the collective knowledge base about middle–tier education officials matters because, as noted in Section 1, middle–tier officials are pivotal intermediaries in implementing foundational literacy and numeracy reforms at scale. Thus, this section offers a research agenda outlining a set of open questions that, if answered, have the potential to meaningfully inform policy and implementation related to the role of middle–tier education officials in foundational learning reforms in the Global South. This is not an exhaustive list; rather, it is an indication of key research questions, organised around the four entry points discussed in this synthesis. For all of these research questions, a pivotal sub–question is the extent to which these factors vary across contexts and over time.

98 Asim, M., Mundy, K., Manion, C., & Tahir, I. (2023). The "Missing Middle" of Education Service Delivery in Low–and Middle–Income Countries. Comparative Education Review, 67(2), 353–378. On underrepresentation of the global south in public administration scholarship more broadly, see: Bertelli, A. M., Hassan, M., Honig, D., Rogger, D., & Williams, M. J. (2020). An agenda for the study of public administration in developing countries. Governance, 33(4), 735–748.

99 Tournier, B., Godwin, K., Cameron, E., & Lugaz, C. (2025). Leveraging the potential of the middle tier to improve education outcomes: The role of a capacity assessment framework. IIEP-UNESCO.

## Equipping middle–tier officials with the knowledge and resources to work toward foundational learning goals

- How can middle–tier officials be equipped cost–effectively at scale without the dilution of effectiveness that can occur with cascade training models?

- What is the optimal balance of technical knowledge/hard skills and mindsets/soft skills in programmes to equip middle–tier officials? How does this vary across roles within the middle tier?

- How effective are programmes that offer accredited qualifications to middle–tier officials in contributing to improvements in children's foundational learning?

- How can resources such as transport allowances or digital devices be provided to middle–tier officials in ways that promote efforts toward foundational literacy and numeracy goals? What enabling factors support the long–term sustainability of such provision?

- To what extent does equipping operate as a binding constraint on programmes that aim to operate through the other entry points?

## Connecting middle–tier officials to a shared commitment to foundational learning goals

- How can programmes operate at scale to foster a sense of shared commitment among middle–tier officials to foundational learning goals without becoming just another official obligation to fulfil?

- How can new approaches for strengthening middle–tier officials' sense of connection build on existing networks, structures and tools that middle–tier officials use for connecting with colleagues, whether formally or informally?

- What tools, techniques and processes can facilitate a sense of collegial connection between middle–tier officials and teachers (or between middle–tier officials and middle–tier managers), particularly in traditionally hierarchical contexts?

## Informing middle–tier officials about progress toward foundational learning goals

- What are the highest–leverage indicators on progress toward foundational learning for both spurring and informing improvement efforts among middle–tier officials? To what extent do these indicators differ from those for other actors in the education system and/or across contexts?

- To what extent can these indicators be collected and disseminated cost effectively, and integrated with other uses of data within the education system?

- How can programmes to better inform middle–tier officials about progress toward foundational learning goals avoid negative side effects such as incentives to game the system?


## Empowering middle–tier officials to prioritise and adapt in line with foundational learning goals

- What can be done to streamline the administrative workloads that typically divert school–facing middle–tier officials from supporting pedagogical improvement?

- What are some strategies for facilitating changes in the job descriptions of middle–tier officials and middle–tier managers toward prioritising foundational learning goals?

- What are the minimum thresholds of equipping, connecting and informing that should be in place before empowering middle–tier officials to adapt in pursuit of foundational learning goals? How do these thresholds vary by type of task/responsibility? What are some indicators (qualitative or quantitative) of such thresholds that top decisionmakers and middle–tier managers can use to responsively delegate or withhold discretion?

- How can top decisionmakers and middle–tier managers strike the optimal balance between equipping middle–tier officials with knowledge and skills upfront and empowering them to learn adaptively on the job?

## Other open questions about supporting the role of middle-tier officials in foundational learning reform

- Across education systems, what is the current composition and distribution of middle-tier officials?
  - How does this vary across functions, administrative tiers, educational backgrounds and other such factors?
  - What can be learned from other countries or other sectors about how to optimise the composition and distribution of middle-tier officials to strengthen their contribution to foundational learning goals?

- What are some diagnostic and formative indicators of the degree to which middle-tier officials in a given context are equipped, connected, informed and empowered to support foundational learning goals?
  - How can such indicators be used in ways that ensure the required investment of resources in ongoing data collection is concretely beneficial for middle-tier officials, teachers and, ultimately, students?

- What contextual conditions affect the scalability and sustainability of a small-scale reform that effectively supports middle-tier officials and raises children's learning outcomes?
  - Under what conditions would such a reform be likely to be embedded in practice at scale? Under what conditions is it likely that such a reform will fail to scale? (eg longstanding bureaucratic norms, strong exam-oriented pressures, political instability and patronage, sociocultural influences)

- Given resource constraints, how should resources for supporting middle-tier officials be distributed?
  - Is it more effective (and cost-effective) to intervene at the teacher level, middle-tier official level, or somewhere else?
  - Is it more effective (and cost-effective) to distribute support to middle-tier officials spread across more offices/ geographies, or to concentrate the support on specific offices/ geographies?

# 8 | References

Adelman, M., & Lemos, R. (2021). Managing for Learning: Measuring and Strengthening Education Management in Latin America and the Caribbean. The World Bank. **https://doi.org/10.1596/978–1–4648–1463–1**

Aiyar, Y. (2024). Lessons in State Capacity from Delhi's Schools. Oxford University Press. **https://doi.org/10.1093/9780198922 667.001.0001**

Aiyar, Y., & Bhattacharya, S. (2016). The Post Office Paradox: A Case Study of the Block Level Education Bureaucracy. Economic and Political Weekly, 51(11), 61–69. **https://accountabilityindia.in/sites/default/files/pdf_files/The_Post_Office_ Paradox.pdf**

Aiyar, Y., Dongre, A. A., & Davis, V. (2015). Education Reforms, Bureaucracy and the Puzzles of Implementation: A Case Study from Bihar (IGC Working Paper No. ID 2695991). International Growth Centre. **https://doi.org/10.2139/ssrn.2695991**

Andrabi, T. (2024, September 25). What Works Hub for Global Education Pakistan Country Research Team Proposal [Conference presentation]. What Works Hub for Global Education Annual Conference, Oxford, United Kingdom. **https://www. youtube.com/live/–lup1DKDX2A?t=387**

Andrews, M., Pritchett, L., & Woolcock, M. (2017). Building state capability: Evidence, analysis, action. Oxford University Press. **https://bsc.cid.harvard.edu/building–state–capability–evidence–analysis–action**

Ang, Y. Y. (2016). How China Escaped the Poverty Trap. Cornell University Press. **http://ebookcentral.proquest.com/lib/ oxford/detail.action?docID=4648037**

Arif, S., Pramana, R. P., Rarasati, N., & Winarti, D. W. (2022). Nurturing Learning Culture among Teachers: Demand–Driven Teacher Professional Development and the Development of Teacher Learning Culture in Jakarta, Indonesia (RISE Working Paper Series No. 22/117). Research on Improving Systems of Education (RISE). **https://doi.org/10.35489/BSG– RISEWP_2022/117**

Ashraf, N., Bandiera, O., & Jack, B. K. (2014). No margin, no mission? A field experiment on incentives for public service delivery. Journal of Public Economics, 120, 1–17. **https://doi.org/10.1016/j.jpubeco.2014.06.014**

Asim, M., Bell, S., Boakye–Yiadom, M., Nudzor, H. P., & Mundy, K. (2024). Management Practices and Implementation Challenges in District Education Directorates in Ghana. Educational Administration Quarterly, 60(3), 275–309. **https://doi. org/10.1177/0013161X241230527**

Asim, M., Mundy, K., Manion, C., & Tahir, I. (2023). The "Missing Middle" of Education Service Delivery in Low– and Middle–Income Countries. Comparative Education Review, 67(2), 353–378. **https://doi.org/10.1086/724280**

Attavar, S., DeBacker, H., Kothuri, A., Lima, L., Ohyama, K., Mangla, A., & Tudor, M. (2024). Teacher Mentorship in India: Improving Pedagogy in Government Schools. The Reach Alliance. **https://reachalliance.org/case–study/education–reform–in– haryana–india/**

Azulai, M., Rasul, I., Rogger, D., & Williams, M. J. (2020). Can training improve organizational culture? Experimental evidence from Ghana's civil service [EDI Working Paper Series]. Economic Development & Institutions. **https://edi.opml.co.uk/resource/can– training–improve–organisational–culture/**

Bandiera, O., Best, M. C., Khan, A. Q., & Prat, A. (2021). The Allocation of Authority in Organizations: A Field Experiment with Bureaucrats. The Quarterly Journal of Economics, 136(4), 2195–2242. **https://doi.org/10.1093/qje/qjab029**

Banerjee, A., Chattopadhyay, R., Duflo, E., Keniston, D., & Singh, N. (2021). Improving Police Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy, and Training. American Economic Journal: Economic Policy, 13(1), 36–66. **https://doi.org/10.1257/pol.20190664**

Beg, S. A., Fitzpatrick, A. E., Kerwin, J. T., Lucas, A., & Rahman, K. W. (2024). When Given Discretion Teachers Did Not Shirk: Evidence from Remedial Education in Secondary Schools (Working Paper No. 33242). National Bureau of Economic Research. **https://doi.org/10.3386/w33242**

Beg, S. A., Fitzpatrick, A. E., & Lucas, A. (2023). Managing to Learn (Working Paper No. 31757). National Bureau of Economic Research. **https://doi.org/10.3386/w31757**

Beggs, C., & Bell, S. (2024). The Middle Tier and Improving Foundational Literacy Outcomes: New Evidence from Best–Practice Districts in Rwanda. Science of Teaching. **https://scienceofteaching.site/wp–content/uploads/2025/03/Middle–tier– study_F.pdf**

Bell, S. (2024). The Middle Tier's Role in Education Improvement: Insights from Social Network and Bureaucratic Norms Research. Science of Teaching. **https://scienceofteaching.site/wp–content/uploads/2024/10/RTI–SOT–Literature– Review_19SEP2.pdf**

Bell, S. (2025). Understanding the competing logics of district education office work: The case of Ghana. International Journal of Educational Development, 113, 103219. **https://doi.org/10.1016/j.ijedudev.2025.103219**

Bellé, N. (2013). Experimental Evidence on the Relationship between Public Service Motivation and Job Performance. Public Administration Review, 73(1), 143–153. **https://doi.org/10.1111/j.1540–6210.2012.02621.x**

Bersch, K., & Fukuyama, F. (2023). Defining Bureaucratic Autonomy. Annual Review of Political Science, 26(Volume 26, 2023), 213–232. **https://doi.org/10.1146/annurev–polisci–051921–102914**

Bertelli, A. M., Hassan, M., Honig, D., Rogger, D., & Williams, M. J. (2020). An agenda for the study of public administration in developing countries. Governance, 33(4), 735–748. **https://doi.org/10.1111/gove.12520**

Besley, T., Burgess, R., Khan, A., & Xu, G. (2022). Bureaucracy and Development. Annual Review of Economics, 14, 397–424. **https://doi.org/10.1146/annurev–economics–080521–011950**

Blazar, D., & Schueler, B. (2024). Effective School District Policies and Practices: Synthesizing Theoretical Frameworks and Empirical Findings across Disciplines. Journal of Research on Educational Effectiveness, 17(4), 647–686. **https://doi.org/10.1080/19345747.2023.2269923**

Boakye–Yiadom, M., Leaver, C., Mansoor, Z., Iocco, M. P., & Leaver, C. (2023). Management and performance in mid–level bureaucracies: Evidence from Ghanaian education districts (DeliverEd Initiative Working Paper). **http://www.bsg.ox.ac.uk/research/publications/management–and–performance–mid–level–bureaucracies–evidence–ghanaian**

Bruns, B., Costa, L., & Cunha, N. (2018). Through the looking glass: Can classroom observation and coaching improve teacher performance in Brazil? Economics of Education Review, 64, 214–250. **https://doi.org/10.1016/j.econedurev.2018.03.003**

Callen, M., Gulzar, S., Hasanain, A., Khan, M. Y., & Rezaee, A. (2020). Data and policy decisions: Experimental evidence from Pakistan. Journal of Development Economics, 146, 102523. **https://doi.org/10.1016/j.jdeveco.2020.102523**

Canales, R., Santini, J. F., González Magaña, M., & Cherem, A. (2025). Shaping Police Officer Mindsets and Behaviors: Experimental Evidence of Procedural Justice Training. Management Science. **https://doi.org/10.1287/mnsc.2022.03243**

Churches, R., McAleavy, T., Page, E., Keper, L., & Jones, C. (2023). Case study: Evidence–based supervision in the Hashemite Kingdom of Jordan. In B. Tournier, C. Chimier, & C. Jones (Eds), Leading teaching and learning together: The role of the middle tier (pp. 38–53). IIEP–UNESCO, Education Development Trust (UK). **https://www.iiep.unesco.org/en/publication/leading–teaching–and–learning–together–role–middle–tier**

Cilliers, J., Dunford, E., & Habyarimana, J. (2022). What Do Local Government Education Managers Do to Boost Learning Outcomes? The World Bank Economic Review, 36(3), 629–645. **https://doi.org/10.1093/wber/lhac001**

Cilliers, J., Fleisch, B., Kotze, J., Mohohlwane, N., Taylor, S., & Thulare, T. (2022). Can virtual replace in–person coaching? Experimental evidence on teacher professional development and student learning. Journal of Development Economics, 155, 102815. **https://doi.org/10.1016/j.jdeveco.2021.102815**

Cilliers, J., & Habyarimana, J. (2023). Tackling Implementation Challenges with Information: Experimental Evidence from a School Governance Reform in Tanzania (RISE Working Paper Series No. 23/142). Research on Improving Systems of Education (RISE). **https://doi.org/10.35489/BSG–RISE–WP_2023/142**

Cilliers, J., Mbiti, I. M., & Zeitlin, A. (2021). Can Public Rankings Improve School Performance?: Evidence from a Nationwide Reform in Tanzania. Journal of Human Resources, 56(3), 655–685. **https://doi.org/10.3368/jhr.56.3.0119–9969R1**

Crawfurd, L., Hares, S., Le, T., & Sandefur, J. (2024). How to Fix Global Education: A Survey of National Policymakers in Developing Countries. Center for Global Development. **https://www.cgdev.org/publication/how–fix–global–education–survey–national–policymakers–developing–countries**

Crouch, L. (2020). Systems Implications for Core Instructional Support Lessons from Sobral (Brazil), Puebla (Mexico), and Kenya (RISE Insight Series No. 2020/020). Research on Improving Systems of Education (RISE). **https://doi.org/10.35489/BSG–RISE–RI_2020/020**

Dal Bó, E., Finan, F., Li, N. Y., & Schechter, L. (2021). Information Technology and Government Decentralization: Experimental Evidence From Paraguay. Econometrica, 89(2), 677–701. **https://doi.org/10.3982/ECTA17497**

Daltry, R. (2024, September 26). Digital personalised learning in Kenya: Findings from a multi–strand implementation research study [Conference presentation]. What Works Hub for Global Education Annual Conference, Oxford, United Kingdom. **https://www.wwhge.org/wp–content/uploads/2024/10/Rebecca–Daltry_WWH–2024–presentation.pdf**

de Grauwe, A., Lugaz, C., Tiberius, B., Ledoka, P. J., Tsepa, M., Kayabwe, S., & Asiimwe, W. (2011). Strengthening local actors: The path to decentralizing education: Kenya, Lesotho, Uganda. IIEP–UNESCO. **https://unesdoc.unesco.org/ark:/48223/pf0000211046**

de Hoyos, R., Djaker, S., Ganimian, A. J., & Holland, P. A. (2024). The impact of combining performance–management tools and training with diagnostic feedback in public schools: Experimental evidence from Argentina. Economics of Education Review, 99, 102518. **https://doi.org/10.1016/j.econedurev.2024.102518**

de Kock, T., Paterson, A., & Shishenge, N. (2025). Dynamics of middle tier support in the South African education system: Contextual and institutional influences. The Learning Generation Initiative at Education Development Center. **https://learninggeneration.org/wp–content/uploads/2025/03/Dynamics–of–Middle–Tier–Support–in–the–South–African–Education–System.pdf**

Deserranno, E., Caria, S., Castrau, P., & León–Ciliotta, G. (2024). The Allocation of Incentives in Multi–Layered Organizations: Evidence from a Community Health Program in Sierra Leone [Manuscript in preparation]. **https://www.dropbox.com/s/w5lfc9eyg3d8fpa/P4P–Multilayer.pdf**

Dignitas. (2024). USTADI Leadership Toolkit Report. Dignitas. **https://bit.ly/ustadiLeadershipToolkitReport**

Djaker, S., Ganimian, A. J., & Sabarwal, S. (2024). Out of sight, out of mind? The gap between students' test performance and teachers' estimations in India and Bangladesh. Economics of Education Review, 102, 102575. **https://doi.org/10.1016/j.econedurev.2024.102575**

Dodge, E., Neggers, Y., Pande, R., & Troyer Moore, C. (2025). Updating the State: Information Acquisition Costs and Social Protection Delivery [Manuscript in preparation]. **https://www.povertyactionlab.org/sites/default/files/research–paper/PayDash_yls.pdf**

Duflo, E., Greenstone, M., Pande, R., & Ryan, N. (2018). The Value of Regulatory Discretion: Estimates From Environmental Inspections in India. Econometrica, 86(6), 2123–2160. **https://doi.org/10.3982/ECTA12876**

Dustan, A., Hernandez–Agramonte, J. M., & Maldonado, S. (2023). Motivating bureaucrats with behavioral insights when state capacity is weak: Evidence from large–scale field experiments in Peru. Journal of Development Economics, 160, 102995. **https://doi.org/10.1016/j.jdeveco.2022.102995**

Elacqua, G., Munevar, I., Sanchez, F., & Santos, H. (2021). The impact of decentralized decision–making on student outcomes and teacher quality: Evidence from Colombia. World Development, 141, 105378. **https://doi.org/10.1016/j.worlddev.2020.105378**

Ericsson, K. A., Krampe, R. T., & Tesch–Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. Psychological Review, 100(3), 363–406. **https://doi.org/10.1037/0033–295X.100.3.363**

Finan, F., Olken, B. A., & Pande, R. (2017). The Personnel Economics of the Developing State. In Handbook of Economic Field Experiments (Vol. 2, pp. 467–514). Elsevier. **https://doi.org/10.1016/bs.hefe.2016.08.001**

Fracchia, M. (2023). Does Performance Evidence Motivate? A Field Experiment in Guinea–Bissau's Health Sector [Manuscript in preparation]. **https://www.dropbox.com/scl/fi/xasje6jw2z2eehrfud6s7/Fracchia_Performance_Evidence.pdf?rlkey=xo7phixynfpyy9u2wfvsrdwad&dl=0**

Fracchia, M., Molina–Millán, T., & Vicente, P. C. (2023). Motivating volunteer health workers in an African capital city. Journal of Development Economics, 163, 103096. **https://doi.org/10.1016/j.jdeveco.2023.103096**

Gauri, V., Jamison, J. C., Mazar, N., & Ozier, O. (2021). Motivating bureaucrats through social recognition: External validity—A tale of two states. Organizational Behavior and Human Decision Processes, 163, 117–131. **https://doi.org/10.1016/j.obhdp.2019.05.005**

Harber, C. (2006). Democracy, development and education: Working with The Gambian inspectorate. International Journal of Educational Development, 26(6), 618–630. **https://doi.org/10.1016/j.ijedudev.2006.02.004**

Hardman, F., Abd–Kadir, J., Agg, C., Migwi, J., Ndambuku, J., & Smith, F. (2009). Changing pedagogical practice in Kenyan primary schools: The impact of school–based training. Comparative Education, 45(1), 65–86. **https://doi.org/10.1080/03050060802661402**

Hargreaves, A., & Fullan, M. (2012). Professional capital: Transforming teaching in every school. Teachers College Press. **https://www.michaelfullan.ca/wp–content/uploads/2013/08/JSD–Power–of–Professional–Capital.pdf**

Hargreaves, A., & Shirley, D. (2020). Leading from the middle: Its nature, origins and importance. Journal of Professional Capital and Community, 5(1), 92–114. **https://doi.org/10.1108/JPCC–06–2019–0013**

Honig, D. (2024). Mission Driven Bureaucrats: Empowering People To Help Government Do Better. Oxford University Press. **https://doi.org/10.1093/oso/9780197641194.001.0001**

Honig, M. I., & Coburn, C. (2008). Evidence–Based Decision Making in School District Central Offices: Toward a Policy and Research Agenda. Educational Policy, 22(4), 578–608. **https://doi.org/10.1177/0895904807307067**

Hwa, Y.–Y. (2024). Opportunities for changing teacher norms vary by underlying factors in teachers' selves, situations, standards, and society. Frontiers in Education, 9. **https://doi.org/10.3389/feduc.2024.1169269**

Irshad, M., Bartels, J., Majeed, M., & Bashir, S. (2022). When breaking the rule becomes necessary: The impact of leader–member exchange quality on nurses pro–social rule–breaking. Nursing Open, 9(5), 2289–2303. **https://doi.org/10.1002/nop2.979**

Jaffer, K. (2010). School inspection and supervision in Pakistan: Approaches and issues. PROSPECTS, 40(3), 375–392. **https://doi.org/10.1007/s11125–010–9163–5**

Joddar, P. (2018). Impact Evaluation of the Literacy Program– Partnership Approach under Scaling up Early Reading Intervention (SERI) funded by USAID 2018: Endline Evaluation Report for Chhattisgarh and Uttarakhand. Room to Read. **https://www.roomtoread.org/media/p3nhkbhi/2018–india–litearcy–impact–eval–of–hindi–schools–under–seri–partnership–approach–endline–report.pdf**

Joshi, P. (2024). How education sector functioning is affected by political influences: Perspectives from district level education officials in Nepal. Compare: A Journal of Comparative and International Education, 54(2), 314–331. **https://doi.org/10.1080/03057925.2022.2108375**

Kaffenberger, M., & Hwa, Y.–Y. (2024). A conceptual framework for synthesis and evidence translation to improve implementation of foundational learning (No. 2024/003; WWHGE Working Paper Series). What Works Hub for Global Education. **https://doi.org/10.35489/BSG–WhatWorksHubforGlobalEducation–WP_2024/003**

Kala, N. (2019). The Impacts of Managerial Autonomy on Firm Outcomes (Working Paper No. 26304). National Bureau of Economic Research. **https://doi.org/10.3386/w26304**

Kaye, T. (2021). Educational technology to improve capacity – Integrative adaptive education programmes in public school in Kenya. In M. Ehren & J. Baxter (Eds), Trust, Accountability and Capacity in Education System Reform: Global Perspectives in Comparative Education (pp. 182–200). Routledge. **https://www.taylorfrancis.com/chapters/edit/10.4324/9780429344855–9/educational–technology–improve–capacity–integrating–adaptive–education–programmes–public–school–kenya–tom–kaye**

Kayton, H., & Kaffenberger, M. (2025). The path to scale: Navigating the scaling of structured pedagogy programmes (WWHGE Insight Note No. 2025/001). What Works Hub for Global Education. **https://doi.org/10.35489/BSG–WhatWorksHubforGlobalEducation–RI_2025/001**

Keaveney, E., Fierros, C., Rigaux, A., & Menendez, A. (2020). Tusome External Evaluation: Endline Report. USAID. **https://pdf.usaid.gov/pdf_docs/PA00XVBP.pdf**

Khan, M. Y. (2025). Mission Motivation and Public Sector Performance: Experimental Evidence from Pakistan. American Economic Review, 115(7), 2343–2375. **https://doi.org/10.1257/aer.20231247**

Kosgey, M. J. C. (2011). Effectiveness of Teacher Advisory Centre Tutors in Curriculum Implementation in Public Secondary Schools: Case of Chepalungu District, Kenya. Educational Research and Reviews, 6(12), 722–725.

Lavy, V., Rachkovski, G., & Boiko, A. (2023). Effects and Mechanisms of CEO Quality in Public Education. The Economic Journal, 133(655), 2738–2774. **https://doi.org/10.1093/ej/uead026**

Leadership for Equity. (2020). Officer's Training Needs Analysis Report 2019. Leadership for Equity. **https://www.leadershipforequity.org/research/officer's–training–needs–analysis–report–2019**

Leadership for Equity. (2022a). LEAD Rapid Impact Evaluation. Leadership for Equity. **https://www.leadershipforequity.org/research/lead–rapid–impact–evaluation**

Leadership for Equity. (2022b). SCERT & DIETs in Tripura: Gaps and Way Forward. Leadership for Equity. **https://www.leadershipforequity.org/research/scert–%26–diets–in–tripura%3A–gaps–and–way–forward**

Leonard, K. L., & Masatu, M. C. (2010). Using the Hawthorne effect to examine the gap between a doctor's best possible practice and actual performance. Journal of Development Economics, 93(2), 226–234. **https://doi.org/10.1016/j.jdeveco.2009.11.001**

Linos, E., Ruffini, K., & Wilcoxen, S. (2022). Reducing Burnout and Resignations among Frontline Workers: A Field Experiment. Journal of Public Administration Research and Theory, 32(3), 473–488. **https://doi.org/10.1093/jopart/muab042**

Lohmann, J., Wilhelm, D., Kambala, C., Brenner, S., Muula, A. S., & De Allegri, M. (2018). 'The money can be a motivator, to me a little, but mostly PBF just helps me to do better in my job.' An exploration of the motivational mechanisms of performance–based financing for health workers in Malawi. Health Policy and Planning, 33(2), 183–191. **https://doi.org/10.1093/heapol/czx156**

London, J. (2021). Outlier Vietnam and the Problem of Embeddedness: Contributions to the Political Economy of Learning (RISE Working Paper Series No. 21/062). Research on Improving Systems of Education (RISE). **https://doi.org/10.35489/BSG–RISE–WP_2021/062**

Mangla, A. (2022). Making Bureaucracy Work: Norms, Education and Public Service Delivery in Rural India. Cambridge University Press. **https://doi.org/10.1017/9781009258050**

Mattsson, M. (2025). Information Systems, Service Delivery, and Corruption: Evidence from the Bangladesh Civil Service. American Economic Journal: Applied Economics, 17(3), 414–445. **https://doi.org/10.1257/app.20230672**

Mc Lennan, A., Muller, M., Orkin, M., & Robertson, H. (2018). District support for curriculum management change in schools. In P. Christie & M. Monyokolo (Eds.), Learning about sustainable change in education in South Africa: The Jika iMfundo campaign 2015–2017 (pp. 225–251). Saide. **https://saide.org.za/books/sustainable–change/index.html**

McAleavy, T., Tran, T. H., & Fitzpatrick, R. (2018). Promising practice: Government schools in Vietnam. Education Development Trust. **https://files.eric.ed.gov/fulltext/ED588856.pdf**

McDonnell, E. M. (2020). Patchwork Leviathan: Pockets of Bureaucratic Effectiveness in Developing States. Princeton University Press,. **https://doi.org/10.1515/9780691200064**

Naicker, S. R., & Mestry, Raj. (2015). Developing educational leaders: A partnership between two universities to bring about system–wide change. South African Journal of Education, 35(2), Article 2. **https://doi.org/10.15700/saje.v35n2a1085**

Paes de Barros, R., Carvalho, M. de, Franco, S. S. O., Garcia, B., Henriques, R., & Machado, L. (2019). Assessment of the Impact of the Jovem de Futuro Program on Learning. The World Bank. **http://documents.worldbank.org/curated/en/825101561723584640/Assessment–of–the–Impact–of–the–Jovem–de–Futuro–Program–on–Learning**

Page, E., Mugiraneza, J.–P., Rutayisire, J., Keper, L., McAleavy, T., & Jones, C. (2023). Case study: Leading a culture of collaborative learning through middle–tier reforms in Rwanda. In B. Tournier, C. Chimier, & C. Jones (Eds), Leading teaching and learning together: The role of the middle tier (pp. 54–69). IIEP-UNESCO, Education Development Trust. **https://www.iiep.unesco.org/en/publication/leading–teaching–and–learning–together–role–middle–tier**

Pepinsky, T. B., Pierskalla, J. H., & Sacks, A. (2017). Bureaucracy and Service Delivery. Annual Review of Political Science, 20(1), 249–268. **https://doi.org/10.1146/annurev–polisci–051215–022705**

Piper, B. (2022). Institutionalizing Tusome in Kenya: Promise and pitfalls (Country Case Study Prepared for the Global Education Monitoring Report No. ED/GEMR/MRT/2022/SL/P6). GEM Report UNESCO. **https://unesdoc.unesco.org/ark:/48223/pf0000383168.locale=en**

Piper, B., Destefano, J., Kinyanjui, E. M., & Ong'ele, S. (2018). Scaling up successfully: Lessons from Kenya's Tusome national literacy program. Journal of Educational Change, 19(3), 293–321. **https://doi.org/10.1007/s10833–018–9325–4**

Piper, B., Sitabkhan, Y., Mejia, J., & Betts, K. (2018). Effectiveness of Teachers' Guides in the Global South: Scripting, Learning Outcomes, and Classroom Utilization. RTI Press. **https://doi.org/10.3768/rtipress.2018.op.0053.1805**

Piza, C., Zwager, A., Ruzzante, M., Dantas, R., & Loureiro, A. (2024). Teacher–led innovations to improve education outcomes: Experimental evidence from Brazil. Journal of Public Economics, 234, 105123. **https://doi.org/10.1016/j.jpubeco.2024.105123**

Pritchett, L. (2015). Creating Education Systems Coherent for Learning Outcomes (RISE Working Paper Series No. 15/005). Research on Improving Systems of Education (RISE). **https://doi.org/10.35489/BSG–RISE–WP_2015/005**

Rahman, S., Burns, P., Wolfram Cox, J., & Alam, Q. (2024). Exercising bureaucratic discretion through selective bridging: A response to institutional complexity in Bangladesh. Public Administration and Development, 44(2), 61–74. **https://doi.org/10.1002/pad.2036**

Rasul, I., & Rogger, D. (2018). Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service. The Economic Journal, 128(608), 413–446. **https://doi.org/10.1111/ecoj.12418**

Sabarwal, S., Asaduzzaman, T. M., & Lnu, D. R. (2020). Can Understanding How Middle Managers Make Decisions Help Design Effective Results–Based Financing Mechanisms in Education? World Bank. **http://documents.worldbank.org/curated/en/959951587535134236/Bangladesh–and–Nepal–Can–Understanding–How–Middle–Managers–Make–Decisions–Help–Design–Effective–Results–Based–Financing–Mechanisms–in–Education**

Schaffner, J., Glewwe, P., & Sharma, U. (2021). Why Programs Fail: Lessons for Improving Public Service Quality from a Mixed–Methods Evaluation of an Unsuccessful Teacher Training Program in Nepal (Staff Paper Nos P21–3). Department of Applied Economics, University of Minnesota. **http://doi.org/10.22004/ag.econ.316663**

Shashidhara, S., Joseph, J., Chordiya, A., Garg, S., & Dhand, S. (2024). Understanding the Motivations and Challenges of ARPs in Uttar Pradesh [Diagnostic report]. Centre for Social and Behaviour Change; Language and Learning Foundation. **https://csbc.org.in/upload/LLF–Final–Deliverable–Diagnostic–Report_V3.pdf**

Spicer, D. E., Ehren, M. C. M., Bangpan, M., Khatwa, M., & Perrone, F. (2016). Under what conditions do inspection, monitoring and assessment improve system efficiency, service delivery and learning outcomes for the poorest and most marginalised? A realist synthesis of school accountability in low– and middle–income countries. EPPI–Centre, Social Science Research Unit, UCL Institute of Education, University College London. **https://eppi.ioe.ac.uk/cms/Publications/Systematicreviews/DFIDSchoolaccountability/tabid/3684/Default.aspx**

Spillane, J. P., Reiser, B. J., & Reimer, T. (2002). Policy Implementation and Cognition: Reframing and Refocusing Implementation Research. Review of Educational Research, 72(3), 387–431. **https://doi.org/10.3102/00346543072003387**

Spillane, J. P., & Thompson, C. L. (1997). Reconstructing Conceptions of Local Capacity: The Local Education Agency's Capacity for Ambitious Instructional Reform. Educational Evaluation and Policy Analysis, 19(2), 185–203. **https://doi.org/10.3102/01623737019002185**

Srivastava, S., & Acharya, S. (2024, April 3). Enhancing Educational Outcomes through Structured Review Processes: The NIPUN Haryana Story. Central Square Foundation. **https://www.centralsquarefoundation.org/blogs/enhancing–educational–outcomes–through–structured–review–processes–the–nipun–haryana–story**

Stern, J., Jordan, R., Sitabkhan, Y., Ralaingita, W., Carrol, B., Betts, K., Jukes, M., Norman, J., Dubeck, P., DeStefano, J., Mejia, J., Bahrawar, L., Cummiskey, C., Jalloh, N., Pamel, J., & Momanyi, R. (2023). Numeracy at Scale: Final Report. RTI International. **https://learningatscale.net/wp-content/uploads/2023/10/Numeracy–at–Scale_Final–Report.pdf**

Stern, J., Jukes, M., DeStefano, J., Mejia, J., Dubeck, P., Carrol, B., Jordan, R., Gatuyu, C., Nduku, T., Van Keuren, C., Punjabi, M., & Tufail, F. (2023). Learning at Scale: Final Report. RTI International. **https://learningatscale.net/wp-content/uploads/2023/10/Learning–at–Scale–Final–Report–.pdf**

Swift–Morgan, J. (2014). Confronting the Informal in Good Governance: The Case of Decentralised Education–System Reform in Guinea. Development Policy Review, 32(4), 399–425. **https://doi.org/10.1111/dpr.12061**

Taylor, N. (2021). Evaluation of the Advanced Certificate in Foundation Phase Literacy Teaching. Rhodes University. **https://fundawande.org/img/cms/news/Rhodes_Evaluation%20of%20the%20Advanced%20Certificate%20in%20Foundation%20Phase%20Literacy%20Teaching.pdf**

Tendler, J. (1997). Good government in the tropics. Johns Hopkins University Press. **http://archive.org/details/goodgovernmentin0000tend**

Tournier, B., Chimier, C., & Jones, C. (Eds). (2023). Leading teaching and learning together: The role of the middle tier. IIEP–UNESCO, Education Development Trust. **https://www.iiep.unesco.org/en/publication/leading–teaching–and–learning–together–role–middle–tier**

Tournier, B., Chimier, C., & Klein, E. (2025). Improving the Quality of Teaching at Scale: Middle–Tier Instructional Leaders as Change Agents. ECNU Review of Education, 20965311251329338. **https://doi.org/10.1177/20965311251329338**

Tournier, B., Godwin, K., Cameron, E., & Lugaz, C. (2025). Leveraging the potential of the middle tier to improve education outcomes: The role of a capacity assessment framework. IIEP–UNESCO. **https://unesdoc.unesco.org/ark:/48223/pf0000393642**

Wadmare, P., Nanda, M., Sabates, R., Sunder, N., & Wadhwa, W. (2022). Understanding the accuracy of teachers' perceptions about low achieving learners in primary schools in rural India: An empirical analysis of alignments and misalignments. International Journal of Educational Research Open, 3, 100198. **https://doi.org/10.1016/j.ijedro.2022.100198**

Walter, T. F. (2019). State management of education systems and educational performance: Evidence from a management survey at district education offices in Zambia (Project Report No. S–89454–ZMB–2). International Growth Centre. **https://www.theigc.org/publications/state–management–education–systems–and–educational–performance–evidence–management**

Williams, M. J., & Yecalo Tecle, L. (2020). Innovation, voice, and hierarchy in the public sector: Evidence from Ghana's civil service. Governance, 33(4), 789–807. **https://doi.org/10.1111/gove.12472**

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The Power of Feedback Revisited: A Meta–Analysis of Educational Feedback Research. Frontiers in Psychology, 10. **https://doi.org/10.3389/fpsyg.2019.03087**

Wood, S., Leoni, S., & Ladley, D. (2023). Comparisons of the effects of individual and collective performance–related pay on performance: A review. Human Resource Management Review, 33(4), 100982. **https://doi.org/10.1016/j.hrmr.2023.100982**

Yarrow, N., Cahu, P., Breeding, M. E., & Afkar, R. (2024). What I really want: Policy maker views on education in Southeast Asia. International Journal of Educational Development, 108, 103054. **https://doi.org/10.1016/j.ijedudev.2024.103054**

Zacka, B. (2017). When the State Meets the Street: Public Service and Moral Agency. Harvard University Press. **http://ebookcentral.proquest.com/lib/oxford/detail.action?docID=5215389**

Zubairi, A. (2021). A district level study on the deployment, allocation and utilisation of teachers between and within Malawi's primary schools: An accountability and political settlement approach [PhD thesis, University of Cambridge]. **https://doi.org/10.17863/CAM.63605**

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