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From Routines to Enactment: Mapping School Leadership for Foundational Learning in Kenyan Primary Schools

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Abstract

Foundational literacy and numeracy underpin all later learning, yet most children in low- and middle-income countries cannot read and understand a simple text by age ten. School leadership is widely theorized as an indirect but consequential level for instructional quality, although evidence on which leadership-for-learning routines are present in primary schools in sub-Saharan Africa remains thin. This study documented the prevalence and patterning of headteacher leadership-for-learning practices in Kenyan primary schools and related them, exploratorily, to school context. A cross-sectional survey of 50 public primary schools across four counties (Bungoma, Mombasa, Nairobi and Tharaka-Nithi) supported description of school and leader profiles, headteacher time use, goal setting and monitoring routines, instructional support and collaboration structures. Foundational learning was proxied, with explicit caution, by school-reported participation in, and pass proportions on, the Kenya Primary School Education Assessment. Descriptive statistics and exploratory sub-county ecological correlations were computed. Core routines were near-universal: mission and vision articulation (98%), headteacher classroom visits (98%), teacher awareness of Ministry learning expectations (96%), school management teams (94%) and availability of teaching guides (94%). Headteachers allocated approximately 41% of their time to teaching and instructional support combined. School-reported pass proportions were high but left-skewed, indicating a tail of lower-performing schools. Ecological correlations were weak and, given nine aggregate units and ceiling-bound indicators, were not interpretable as evidence of association. The study concluded that the structural preconditions for foundational-learning leadership are widely in place, which shifts the salient question from the presence of routines to the quality of their enactment.

Keywords: *instructional leadership; leadership for learning; foundational learning; primary education; school management; educational assessment; Kenya*

1. Introduction

1.1 Background to study

Foundational learning, understood as the acquisition of basic literacy and numeracy and the related early competencies on which later schooling depends, has moved to the centre of the global education agenda. The diagnosis is stark. Across low- and middle-income countries, an estimated 53% of children were already unable to read and understand a simple text by age ten before the COVID-19 pandemic, a figure projected to have risen towards 70% after prolonged school closures, with the largest losses concentrated in sub-Saharan Africa (World Bank et al., 2022). Continental estimates are bleaker still: only about one child in nine reaches the minimum proficiency level in reading and mathematics by the end of primary school in Africa (UNESCO, 2025). Because foundational skills are cumulative, weak early learning does more than leave children behind at a single point in time. As the curriculum advances, learners who have not mastered the basics fall progressively further back and the gaps between them and their peers



widen (UNESCO, 2025). Securing foundational learning is therefore both an equity imperative and a precondition for the returns that education is expected to yield.

Kenya illustrates both the ambition and the difficulty of this agenda. The country has undertaken a far-reaching shift from the examination-driven 8-4-4 system to a Competency-Based Curriculum, repositioning end-of-primary assessment away from high-stakes selection and towards the monitoring of learner progress. The Kenya Primary School Education Assessment, introduced at Grade 6, is explicitly framed as a low-stakes instrument for tracking progress rather than for placement (Kenya National Examinations Council [KNEC], 2023). Kenya is also a notable site of large-scale instructional reform. The national Tusome early-grade reading programme delivered structured lesson materials, benchmarked assessments and routine instructional coaching through county Curriculum Support Officers and is widely cited as a rare case of a literacy intervention that improved outcomes at national scale (Piper et al., 2018). Despite such efforts, recent evidence indicates that large shares of Kenyan children still fall short of expected foundational benchmarks, with persistent disparities across regions and households (Usawa Agenda, 2023). The reform architecture is substantial; learning outcomes remain uneven.

School leadership is among the most consistently cited school-level levers for improving instructional quality, although its influence on learning is largely indirect. Leaders shape outcomes chiefly by setting direction, developing people and organising the school for teaching and learning, rather than through direct contact with pupils. The two-decade synthesis by Grissom et al. (2021) reinforced and extended this conclusion, arguing that the contribution of effective principals had, if anything, been understated. Practices closest to the core work of teaching, namely setting goals, monitoring learning, evaluating instruction and supporting teacher development, associate more strongly with outcomes than primarily administrative practices.

Recent meta-analytic work both quantifies and qualifies these claims, and the qualifications matter. Tan et al. (2024), synthesizing 493 effects from 108 studies, reported a small mean association ($r = .14$) that emerged clearly at the school level of analysis and aligned more closely with achievement and learning processes than with terminal attainment. Hallinger et al. (2025) documented reliable links between principal instructional leadership and the teacher attitudes through which leadership is presumed to operate, including trust, efficacy and commitment, with a pooled correlation of $r = .45$. Karakose et al. (2025) traced comparable mediated pathways between leadership for learning and teacher professional development. Against this, Pietsch et al. (2025), analyzing international assessment data covering 1.5 million pupils in more than 50,000 schools across 75 countries, found a mean instructional leadership to achievement correlation close to zero, varying substantially with human development level and cultural context. Özdemir et al. (2024), reviewing 144 studies, attribute much of this inconsistency to the dominance of direct-effect models that omit the mediating conditions through which leadership plausibly works. The reasonable reading of this literature is that leadership matters through teachers and organisational conditions rather than upon learners, that its measured effects are modest, and that context governs whether they appear at all. Mincu (2022) makes the same point from a structural and cultural angle, arguing that leadership models travel poorly between systems with different governance and resourcing assumptions.

Within sub-Saharan African systems, the generic construct translates into a handful of observable practices: clarity of learning expectations for teachers, continuous assessment for progress monitoring, use of evidence to shape support, and professional learning networks through which improvement is spread. The regional evidence base, however, is patchy. Bush et al. (2021) report a familiar disconnect between the policy rhetoric of instructional leadership and its implementation across several African settings, where headship remains largely administrative in practice. Wills and van der Berg (2021), studying rural and township primary schools in South Africa, find measurable linkages between leadership and management practices and early literacy, which establishes that what leaders do is both observable and consequential even in resource-constrained settings. The Education Commission (2023) reaches a similar conclusion for the continent, identifying school-level leadership capacity as a recurrent bottleneck in foundational-learning reform.

The teacher preparation and professional development systems on which leadership routines depend remain a persistent constraint across the region (Akyeampong et al., 2020). At the same time, the interventions with the strongest cost-effectiveness evidence for foundational learning, notably structured pedagogy and teaching at the right level, are precisely those that require school-level routines of assessment, monitoring and coaching in order to function (Global Education Evidence Advisory Panel [GEEAP], 2023). Leadership-for-learning routines are therefore not peripheral to the foundational-learning agenda. They are the organisational substrate on which effective pedagogy



depends, a position that the 2024/5 Global Education Monitoring Report advances for education systems generally (UNESCO, 2024).

1.2 Conceptual framework

The study is organized by the leadership-for-learning perspective, which treats the influence of the head of institution on pupil outcomes as mediated through the conditions of teaching rather than exercised directly upon learners (Grissom et al., 2021; Özdemir et al., 2024). Four interrelated domains of practice recur across this literature and structure the present analysis. The first is setting direction, that is, articulating a shared mission and learning-focused goals that orient collective effort. The second is developing people and instruction, which covers monitoring teaching, conducting classroom visits, and ensuring that teachers understand and act on learning expectations. The third is redesigning the organisation, meaning the construction of collaborative structures such as management teams and the alignment of material resources with instruction. The fourth is mobilizing external support, drawing on professional networks and system actors to sustain improvement. Each of the study's leadership indicators maps onto one of these domains, which allows the descriptive findings to be read against an established theoretical scaffold rather than as an unordered inventory of survey items.

Two features of the framework are consequential for interpretation. First, because leadership operates through teacher capacity, school culture and organisational routines, its measured association with learning is expected to be modest and to surface most clearly at the school level of analysis (Tan et al., 2024). Where those mediating conditions are absent or unmeasured, the association may not appear at all (Pietsch et al., 2025). This bears directly on the design choices and interpretive cautions developed below.

Second, the framework distinguishes the presence of a routine from the quality of its enactment. A school may report conducting classroom visits or convening a management team while the instructional substance of those activities remains thin. Evidence from Kenya's own Tusome programme is instructive: routine coaching visits were associated with improved practice primarily where the feedback they carried was instructionally specific, not merely where visits occurred (Piper et al., 2018). The same asymmetry appears in the wider evidence on school management interventions, where low take-up and the absence of structure for implementing recommendations are among the recurrent limits on effectiveness (Anand et al., 2023). This presence-versus-quality distinction is treated throughout as the central interpretive lens for the findings, and it is reflected in the title of this paper.

1.3 Statement of the problem

Despite sustained policy commitment to foundational learning, many Kenyan learners reach upper primary without mastering grade-level literacy and numeracy (Usawa Agenda, 2023). School leadership is a plausible and policy-actionable lever for strengthening instructional quality and learning monitoring (Bush et al., 2021; Özdemir et al., 2024; Tan et al., 2024), yet little empirical evidence documents which leadership-for-learning practices are present in Kenyan primary schools, or in what configuration. This absence of descriptive baseline evidence constrains the very decisions that depend on it: where to target scarce leadership-development investment, how to design coaching support that fits existing practice rather than an idealised template, and which governance arrangements most require revision to support foundational learning at scale. The problem this study addresses is therefore primarily diagnostic, namely establishing what is in place before asking what should change.

1.4 Objectives and research questions

The study pursued five descriptive and exploration objectives.

1. Describe the characteristics of the sample schools and their leaders, including demographics, qualifications and experience;
2. Examine how heads of institution allocate time across teaching, instructional support, administration, leadership and stakeholder engagement;
3. Document leadership-for-learning practices, including mission and vision setting, awareness of learning expectations, classroom visits and assessment-monitoring routines;
4. Assess the collaboration and support structures, namely school management teams and professional networks, that may enable foundational learning; and
5. Explore, at an aggregate level only, how selected leadership-practice indicators co-vary with school context, using sub-county ecological correlations interpreted as description rather than inference.



Correspondingly, four research questions guided the analysis. RQ1 asked what leadership-for-learning routines are present in the sampled schools and how prevalent they are. RQ2 asked how heads of institutions distribute their working time across instructional and non-instructional activities. RQ3 asked how school-reported foundational-learning proxies are distributed across schools. RQ4 asked how, if at all, leadership-practice indicators co-vary with school context at sub-county level. Consistent with the design, RQ4 is framed as exploratory, and the study does not test causal hypotheses.

2. Research Methods

2.1 Design

The study employed a cross-sectional, descriptive survey design. Its aims were to characterize the prevalence and configuration of leadership-for-learning practices and to explore their aggregate co-variation with school context. The design supports description and hypothesis generation. It does not support causal inference, and the analysis is reported and interpreted accordingly.

2.2 Setting, sampling and instrumentation

The analysis draws on an anonymized dataset of aggregated survey outputs from 50 public primary schools in four Kenyan counties, namely Bungoma, Mombasa, Nairobi and Tharaka-Nithi. The data were generated by the Kenya component of the Spotlight series on basic education completion and foundational learning, conducted through a partnership involving the Ministry of Education, the Kenya Education Management Institute and the Global Education Monitoring Report team (UNESCO, 2026). The author was not a member of the original data-collection team and accessed the dataset in secondary, aggregated form.

Sampling was purposive and stratified. Counties were selected to span diverse geographic and socioeconomic contexts, and schools within them were selected to reflect variation in location, size and performance. Fieldwork was carried out between 26 May and 4 June 2025. The survey instruments were contextualized with technical assistance from the participating agencies and were administered to heads of institution, to Grade 1 to 3 teachers, and to representatives of Boards of Management; interviews with sub-county education officials were conducted in parallel to triangulate the survey data. The indicators analyzed here derive from the head of institution questionnaire, which was completed by the head personally. The instrument captured school characteristics, school-leader profiles, headteacher time use, learning goals and tracking practices, teacher-support routines, material availability, collaboration structures and external support. Item-level reliability statistics were not computed for the binary indicators, since these record the presence or absence of discrete organisational facts rather than a latent construct.

Because the dataset was supplied in anonymized and aggregated form, the individual-school sampling frame and the survey response rate could not be reconstructed. The four-county composition and the modest sample size ($n = 50$) mean that the findings are best read as descriptive of these schools rather than as nationally representative estimates. A companion analysis of the community questionnaire administered to Board of Management representatives in the same study is reported separately (Mutegei, 2026).

2.3 Measures

Leadership for learning was operationalized through indicators mapped to the four conceptual domains set out in Section 1.2: the presence of a mission and vision statement and stakeholder participation in its development (setting direction); headteacher classroom visits and their frequency, together with teachers' awareness of Ministry of Education learning expectations (developing people and instruction); the presence and meeting routines of a School Management Team and the availability of teaching guides (redesigning the organisation); and participation in headteacher networks (mobilizing external support). Most indicators are binary school-level reports of presence or absence.

Foundational learning was not measured directly, since the dataset contains no early-grade literacy or numeracy assessment scores. Two proxies were used, with explicit caution: the distribution of the number of pupils presenting the Kenya Primary School Education Assessment per school, and the distribution of the school-reported proportion of pupils passing it, read alongside assessment-monitoring routines. A construct-validity caveat is important and is foregrounded here rather than relegated to the limitations. The assessment is administered at Grade 6 and indexes upper-primary attainment, whereas foundational skills are by definition early-grade competencies. The proxies should therefore be read as distal indicators of system performance, not as measures of foundational mastery. Their interpretive weight in this paper is correspondingly limited, and meta-analytic evidence that leadership relates more reliably to achievement and learning processes than to terminal attainment (Tan et al., 2024) counsels further caution.



2.4 Data analysis

Analysis proceeded in two stages. First, descriptive statistics comprising frequencies, percentages and summary statistics characterized each indicator, and the relationship between the mean and the median was used to characterize the distributional shape of the continuous outcome proxies. Second, because the dataset is aggregated and individual-level regression is therefore infeasible, exploratory associations were examined by computing Pearson correlations among sub-county summaries ($k = 9$), linking mean school size with the prevalence of selected leadership practices, namely classroom visits, School Management Team presence and teachers' awareness of expectations.

These correlations are interpreted strictly as descriptions of aggregate co-variation, and two cautions apply. First, relationships observed among aggregates need not hold among the individual schools that compose them. This is the ecological fallacy, set out in the classic demonstration by Robinson (1950) and still the standard reference for the problem, so the coefficients cannot be transferred to the school or pupil level. Second, with only nine aggregate units and several indicators near their ceilings, the coefficients are statistically unstable. For this reason, inferential statistics are not reported, since the number of units cannot support credible inference. The matrix is presented for transparency and hypothesis generation only.

2.5 Ethical considerations and data availability

The study uses secondary data supplied in anonymized, school-aggregated form, containing no personal identifiers for pupils, teachers or school leaders. No individual-level data was accessed. Ethical clearance and national review board permissions for the original data collection were obtained by the agencies that commissioned the Spotlight fieldwork. The analysis is limited to aggregate description and makes no attempt to re-identify schools or individuals.

3. Analysis Results

3.1 Sample and context characteristics

The 50 schools were distributed across the four counties with near-balanced representation and were split almost evenly between rural and urban locations. Just over half were not accessible by a paved road. Table 1 reports the distribution.

Table 1: School and context characteristics ($n = 50$)

Characteristic	Category	Schools (n)	Percent
County	Bungoma	13	26%
	Mombasa	12	24%
	Nairobi	12	24%
	Tharaka-Nithi	13	26%
Location	Rural	26	52%
	Urban	24	48%
Accessible by paved road	Yes	23	46%
	No	27	54%

The near-even rural and urban split gives the sample reasonable internal contrast, but the road-access finding is the more consequential contextual fact. 54% of schools sit off the paved network, which bears directly on the reach of the coaching and material-supply systems through which instructional leadership is supported. This is the practical form that the resourcing constraint identified by Akyeampong et al. (2020) takes at school level, and it is consistent with the Education Commission (2023) observation that delivery infrastructure, rather than policy design, is often the binding constraint on foundational-learning reform in African systems.

3.2 Profile of school leaders

Heads of institutions were predominantly male (60%) and generally well qualified, with roughly two-thirds holding a bachelor's degree or higher and one in five holding a postgraduate qualification. The cohort was experienced and relatively senior, with ages ranging from 40 to 60 years ($M = 53.8$, $Mdn = 54$). Table 2 summarizes the profile.



Table 2: Profile of heads of institutions (n = 50)

Characteristic	Category	Heads (n)	Percent
Sex	Female	20	40%
	Male	30	60%
Highest academic qualification	Secondary school	1	2%
	Certificate	1	2%
	Diploma	13	26%
	Bachelor's degree	24	48%
	Postgraduate (Master's or PhD)	10	20%

Table 2 describes a workforce with substantial formal preparation and tenure, which is an asset for instructional leadership, but also a cohort clustered towards the upper end of the career span, with evident implications for succession planning. The qualification profile is notably stronger than the regional picture sketched by Bush et al. (2021), in which limited preparation is a recurrent explanation for administratively oriented headship. Formal qualification, however, is a weak proxy for instructional capability. Karakose et al. (2025) show that the leadership-to-teacher-development pathway runs through specific professional practices rather than through credentials, and the gender imbalance recorded here (40% female) invites attention in a system where the teaching workforce at primary level is not correspondingly skewed.

3.3 Headteacher time use

Reported time allocation reflected a pronounced instructional orientation. The largest single share went to instructional tasks and support to teachers (21.8%), followed by teaching (18.9%), together accounting for approximately 41% of working time. Professional training absorbed 12.9%, leadership tasks and meetings 12.5%, and administrative tasks and meetings 10.8%. Engagement with parents (8.5%), the community (8.2%) and pupils (6.4%) made up the remainder. Figure 1 presents the distribution.

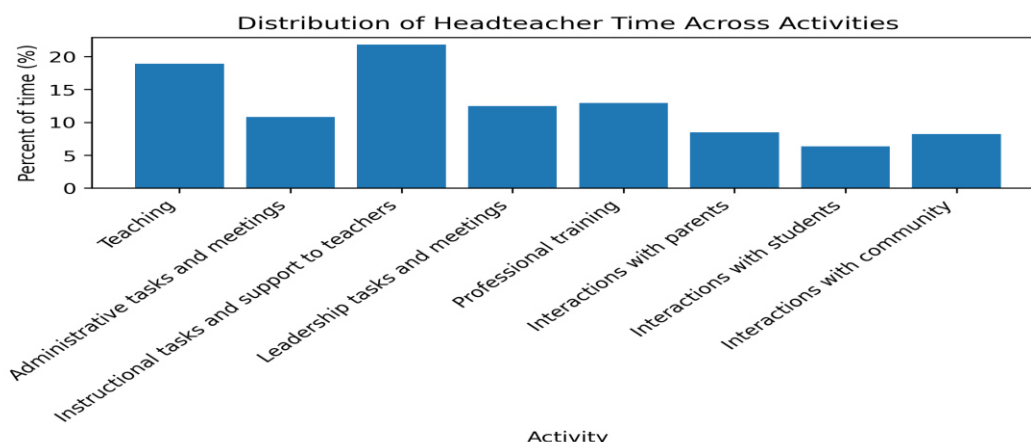


Figure 1. *Distribution of headteacher time across activities (per cent)*

The combined instructional share substantially exceeds the administrative share, a pattern consistent with the leadership-for-learning ideal of protecting time for the core work of teaching. It also stands in contrast to the regional pattern reported by Bush et al. (2021), in which African headship is described as predominantly administrative, and to the global finding that principals in many middle-income systems spend the bulk of their time on routine management (UNESCO, 2024). Two qualifications are needed. Self-reported time allocation is susceptible to social-desirability bias and would need corroboration through observation or time-use diaries (Grissom et al., 2021). Further,



values are shown to one decimal place because the shares are constrained to sum to 100%, not because the underlying self-reports support that precision.

3.4 Prevalence of leadership-for-learning routines

Direction-setting, instructional-monitoring and collaborative-governance routines were near-universal across the sample. Almost all schools reported a mission and vision statement (98%), teachers in 96% of schools were reported to be aware of Ministry of Education learning expectations; headteacher classroom visits were reported in 98% of schools, and 94% reported an operating School Management Team. Teaching guides were available in 94% of schools, with a small share reporting their absence (4%) or uncertainty (2%). Participation in headteacher networks was reported in every school sampled. Table 3 reports the prevalence of each routine against the conceptual domain to which it belongs.

Table 3: Prevalence of leadership-for-learning routines by conceptual domain (n = 50)

Routine	Conceptual domain	Yes (n)	Percent
Mission and vision statement present	Setting direction	49	98%
Teachers aware of Ministry learning expectations	Developing people and instruction	48	96%
Head of institution conducts classroom visits	Developing people and instruction	49	98%
School Management Team operating	Redesigning the organisation	47	94%
Teaching guides available	Redesigning the organisation	47	94%
Participation in headteacher networks	Mobilizing external support	50	100%

Table 3 reads as a strong descriptive result and a weak analytic one at the same time. Substantively, the structural preconditions for foundational-learning leadership are widely in place, which is consistent with the proposition that the binding constraint in such systems lies less in the existence of routines than in their enactment (Bush et al., 2021; Education Commission, 2023). The Kenyan finding is corroborated externally: the 2025 Spotlight analysis reports that Kenyan school leaders devote more time to instructional leadership and conduct classroom observations more frequently than their counterparts in the other countries in that series (UNESCO, 2025).

Methodologically, however, the same clustering produces strong ceiling effects. Indicators with prevalence between 94% and 100% contain almost no between-school variance, which sharply limits their capacity to explain differences in any outcome. Every entry in Table 3 records occurrence rather than substance. The survey established that classroom visits happen, but not whether they carry instructionally specific feedback; that management teams exist, but not whether their agendas address teaching; and that guides are available, but not whether they are used for differentiated instruction. This is the distinction on which the improvement evidence turns, and it is developed in Section 4.

3.5 Foundational-learning outcome proxies

In the absence of direct early-grade assessment scores, two proxies based on the Kenya Primary School Education Assessment are reported in Table 4. The number of pupils presenting the assessment varied widely across schools, from 4 to 882, with the mean (143.6) markedly exceeding the median (88.5), a pronounced right skew indicating that a minority of large schools account for a disproportionate share of candidates. School-reported pass proportions were high overall but left-skewed: the median of .82 exceeded the mean of .76, and the first quartile of .62 indicates that roughly a quarter of schools reported pass proportions at or below that level.

Table 4: Summary statistics for the assessment-based outcome proxies (per school, n = 50)

Statistic	Pupils presenting the assessment	Proportion of pupils passing
Minimum	4	0.18
1st quartile	44.8	0.62



Statistic	Pupils presenting the assessment	Proportion of pupils passing
Median	88.5	0.82
Mean	143.6	0.76
3rd quartile	168.8	0.96
Maximum	882	1.00

While central tendency is high, Table 4 therefore reveals a non-trivial tail of lower-performing schools, and it is that tail rather than the average that carries diagnostic value. Consistent with Section 2.3, these patterns are interpreted as distal system indicators rather than as measures of foundational mastery, since the assessment is a Grade 6 instrument now repositioned for progress monitoring under the Competency-Based Curriculum (KNEC, 2023). The gap between the high pass proportions recorded here and the much weaker foundational benchmarks reported for Kenyan learners elsewhere (Usawa Agenda, 2023) is itself informative: it indicates either that the two instruments measure different constructs, which is the position taken here, or that school-reported pass proportions are optimistic. Either reading counsels against treating Table 4 as an outcome measure. The wider evidence supports this restraint, since leadership associates more reliably with achievement and learning processes than with terminal attainment (Tan et al., 2024).

3.6 Exploratory sub-county associations

Sub-county aggregates ($k = 9$) were linked to mean school size and to the prevalence of selected leadership practices. The resulting Pearson correlations appear in Table 5. The associations were uniformly weak. The largest coefficient linked mean school size with teachers' awareness of learning expectations ($r = .484$), while classroom-visit prevalence was essentially unrelated to school size ($r = -.082$) and weakly negative with awareness of expectations ($r = -.188$).

Table 5: Pearson correlation matrix among sub-county aggregates ($k = 9$)

Variable	Mean school size	Classroom visits	SMT present	Teachers aware
Mean school size	1.000	-.082	.282	.484
Classroom visits	-.082	1.000	.108	-.188
SMT present	.282	.108	1.000	.129
Teachers aware	.484	-.188	.129	1.000

Note. Values are Pearson correlation coefficients computed among nine sub-county aggregates. Classroom visits, SMT present and Teachers aware denote the sub-county prevalence, that is, the proportion of schools reporting yes, of each practice. Coefficients are descriptive only, and no significance tests are reported owing to the small number of aggregate units.

Given the very small number of aggregate units and the ceiling-bound nature of several indicators documented in Table 3, these coefficients are unstable and are presented for transparency and hypothesis generation only. They are not interpreted as evidence of association at the school or pupil level, since relationships among aggregates need not hold among their constituent units (Robinson, 1950). The weakness of the coefficients is nonetheless consistent with two strands of recent evidence. Pietsch et al. (2025) found a near-zero mean instructional leadership to achievement correlation across 75 countries once context was modelled, and Özdemir et al. (2024) attribute such null findings largely to direct-effect specifications that omit mediating conditions. A matrix of ceiling-bound presence indicators, computed over nine units, is precisely the specification that this literature predicts will yield nothing.

4. Discussion

Three findings stand out, each carrying a dual interpretation, substantive and methodological. The first is the near-universal presence of core leadership-for-learning routines, which clustered at or above 94% across every conceptual domain. Substantively this is encouraging, since it indicates that the structural preconditions for foundational-learning leadership are widely in place, consistent with international evidence on the active engagement of leaders in teaching and learning (Grissom et al., 2021; UNESCO, 2024). Methodologically, the same clustering is a constraint. Near-ceiling indicators carry almost no between-school variance and therefore cannot explain differences in any outcome.



The ceilings are simultaneously a positive descriptive finding and a limit on analytic leverage, a tension that explains in part why the exploratory correlations reported in Table 5 were weak.

The second concerns time use. Heads of institution allocated roughly 41% of their time to teaching and instructional support combined, well above the 10.8% devoted to administration. This orientation is consonant with the leadership-for-learning ideal. The administrative share, though modest, is not inconsequential, because it competes directly with the indirect pathway through teacher capacity, school culture and organisational routines by which leadership is understood to affect learning (Karakose et al., 2025; Tan et al., 2024). Protected instructional-leadership time is not incidental to those pathways. It is the mechanism through which they operate.

The third and most consequential theme is the gap between the presence of routines and the quality of their enactment. This distinction is not a peripheral caveat; it is where the evidence on improvement concentrates. Kenya's own Tusome programme found that routine coaching visits improved practice principally where the feedback was instructionally specific, not merely where visits took place (Piper et al., 2018). More broadly, the interventions with the strongest cost-effectiveness evidence for foundational learning, namely structured pedagogy and teaching at the right level, depend on exactly these enactment qualities: continuous assessment, data-informed grouping and supportive monitoring (GEEAP, 2023). The systematic review by Anand et al. (2023) reaches a convergent conclusion from the management side, estimating an average learning gain of only 0.04 standard deviations from school management interventions and attributing the shortfall in part to the absence of structure for implementing what leaders and teams agree. Where structural preconditions are already widespread, as in this sample, the marginal returns to improvement are most plausibly found in the quality of enactment rather than in the further proliferation of routines.

The collaboration findings invite similar reading. Near-universal management teams and networks signal reach, but the silence of the survey on meeting frequency and instructional focus means that the depth of collaboration cannot be established. The very ubiquity of headteacher networks, however, suggests latent capacity that could be repurposed from information exchange into structured platforms for peer observation, coaching and mutual accountability for foundational learning. Whether that repurposing succeeds is likely to depend on context rather than on design alone, given evidence that the effects of instructional leadership vary substantially with system conditions (Mincu, 2022; Pietsch et al., 2025).

4.1 Limitations

Several constraints bind these conclusions and should be read alongside every finding reported above. The sample is modest ($n = 50$), confined to four counties, and purposively rather than probabilistically selected, so the findings describe these schools rather than the national system. Because the dataset was supplied in anonymized, aggregated form, the sampling frame and response rate could not be reconstructed, and individual-level modelling was infeasible. All leadership measures are binary self-reports from the head of institution, which raises the prospect of social-desirability bias in precisely the direction that would inflate the prevalence figures in Table 3 and the instructional share in Figure 1. The indicators capture the presence of routines and not the quality of their enactment, which the survey did not measure and which the discussion identifies as the more consequential quantity.

The outcome measures are distal proxies. The Kenya Primary School Education Assessment is a Grade 6 instrument and is conceptually distant from the early-grade competencies that define foundational learning, so no claim about foundational mastery can rest on Table 4. The near-ceiling distribution of the leadership indicators removes most of the between-school variance that any association would require. The exploratory correlations rest on nine aggregate units, are not transferable to the school or pupil level (Robinson, 1950), and are reported without inferential statistics for that reason. Finally, the design is cross-sectional, so nothing reported here supports causal inference about the contribution of leadership routines to learning.

4.2 Implications for future research

These limitations point to a clear design agenda. Future studies should pair leadership measures with direct early-grade literacy and numeracy assessments, replacing distal attainment proxies with construct-valid foundational outcomes. To overcome ceiling effects, leadership should be measured with continuous, enactment-sensitive instruments, for example observed feedback quality during classroom visits, coded management team agendas, and verified classroom use of teaching guides, rather than binary presence indicators. Designs capable of supporting inference are needed: adequately powered school-level samples permitting multilevel modelling and, where feasible, longitudinal or quasi-experimental designs that can isolate the contribution of specific leadership routines to learning



growth. Given the evidence that leadership works through mediating conditions rather than directly (Karakose et al., 2025; Özdemir et al., 2024), such designs should model teacher capacity and school climate explicitly rather than treating them as unobserved. Work of this kind would convert the descriptive baseline established here into evidence capable of guiding investment.

5. Conclusions

Leadership-for-learning routines were widely reported across the sampled Kenyan primary schools, which indicates that the structural preconditions for improving foundational learning are largely in place. This is a meaningful baseline, but it is not, on its own, evidence of impact. The clustering of indicators near their ceilings, the reliance on distal attainment proxies and the aggregated cross-sectional design together preclude claims about effects on foundational learning. The more defensible conclusion is that, where routines are already near-universal, the salient question shifts from their presence to the quality of their enactment, above all the use of continuous assessment data and the instructional specificity of coaching and collaboration.

The practical stakes of that shift are immediate. For county and sub-county education offices, it implies that supervision instruments which record whether a school management team exists or whether classroom visits occurred will register near-universal compliance across schools such as these and will therefore surface none of the variation that matters; instruments that capture the content of feedback and the use of assessment evidence would surface it. For the Teachers Service Commission and the Kenya Education Management Institute, it implies that leadership development should concentrate on the instructional substance of routines that heads already perform rather than on establishing routines they already have. Converting widespread structural readiness into measurable gains in early literacy and numeracy will depend on deepening evidence use and on strengthening the collaborative structures through which leadership routines acquire instructional substance.

6. Recommendations

1. Protect instructional-leadership time by reducing low-value administrative meetings and delegating routine administrative tasks, thereby safeguarding the time that operates as the mechanism of leadership's indirect effects on learning.
2. Strengthen school-based assessment literacy so that heads of institution and teachers routinely use continuous assessment data to identify foundational-learning gaps and target support, consistent with the assessment-dependent logic of the most cost-effective interventions.
3. Raise the instructional quality of classroom visits by equipping heads of institutions to deliver specific, actionable feedback, drawing on the lesson from Tusome that feedback quality rather than visit frequency alone drives improved practice.
4. Enhance the effectiveness of school management teams through agendas focused on teaching and learning, regular review of assessment evidence, and documented follow-up on agreed actions, so that near-universal structures acquire instructional substance.
5. Repurpose headteacher networks, which were reported in every sample school, from information exchange into structured platforms for peer observation and coaching, converting existing reach into instructional depth.
6. As a forward-looking proposition rather than a direct implication of these findings, consider integrating parent and community engagement into foundational-learning strategies. The present data speak only to the share of headteacher time devoted to parents (8.5%) and to the community (8.2%), and carry no information on the content or learning relevance of that engagement, so the case for specific mechanisms such as home-based practice routines rests on evidence external to this study and warrants direct investigation.

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