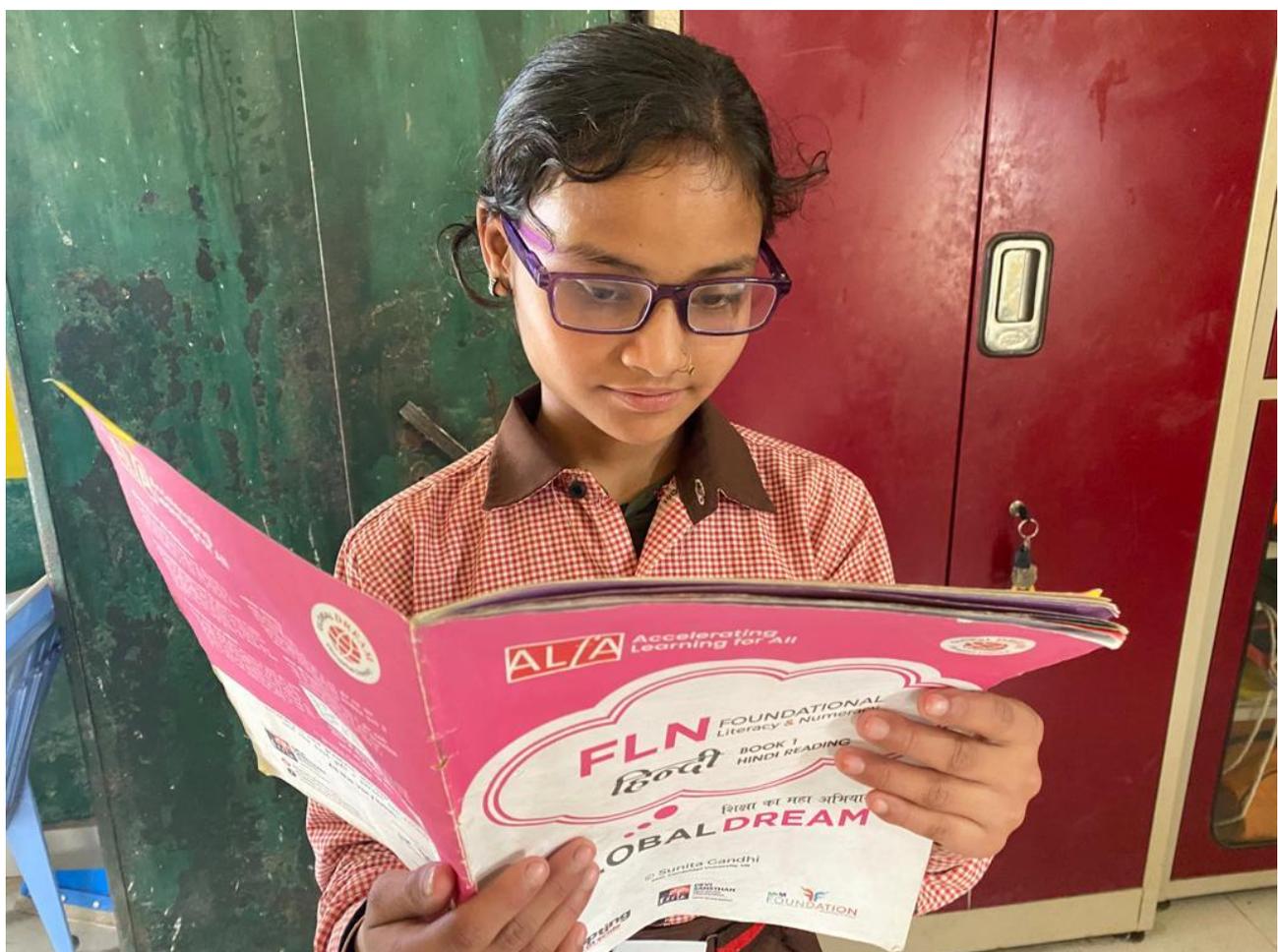# The FLN Emergency:
Rethinking Pedagogy, Evidence and Scaling
White Paper: Lessons from Uttar Pradesh and Beyond

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List of Abbreviations

Abbreviation	Full Form
ALfA	Accelerating Learning for All
ARP	Academic Resource Person
ASER	Annual Status of Education Report
BSA	Block School Administration
COVID-19	Coronavirus Disease 2019
CSF	Central Square Foundation
DEVI	Dignity Education Vision International
DGSE	Director General of School Education
FLN	Foundational Literacy and Numeracy
GPE	Global Partnership for Education
LLF	Language & Learning Foundation
LMIC	Low- and Middle-Income Country
NAT	NIPUN Assessment Test
NAS	National Achievement Survey
NEP	National Education Policy
NGO	Non-Governmental Organization
NIPUN	National Initiative for Proficiency in Reading with Understanding and Numeracy
OECD	Organisation for Economic Co-operation and Development
PARAKH	Performance, Assessment, Review and Analysis of Knowledge for Holistic Development
PRS	PARAKH Rashtriya Sarvekshan
RCT	Randomized Controlled Trial

RRI	Rapid Results Initiative
SD	Standard Deviation
SDG	Sustainable Development Goal
SEL	Social-Emotional Learning
TaRL	Teaching at the Right Level
TLM	Teaching-Learning Material
UDISE	Unified District Information System on Education
UNICEF	United Nations Children's Fund

Glossary of Pedagogical Terms

Term	Definition
4C Skills + 4C Traits	Skills: Communication, Collaboration, Creativity, Critical Thinking Traits: Citizenship, Character, Connectedness, Climate-Consciousness These 21st-century competencies increasingly recognized as essential for modern workforce and civic participation.
Ability grouping	Dividing students into groups based on perceived learning level (e.g., "fast" vs "slow" groups). Can create stigma and reduce social integration.
Blending	Combining individual sounds to form words (e.g., /c/ + /a/ + /t/ = "cat"). Key component of phonics-based literacy instruction.
Decoding	The ability to sound out and read words using letter-sound knowledge and blending. Foundational literacy skill.
Effect size	Statistical measure of the magnitude of change (e.g., learning gain) in standard deviation units. Effect size of 0.2-0.5 SD is considered meaningful; 0.5+ is substantial.
Equity	Fair distribution of benefits and outcomes across demographic groups (gender, caste, disability, geography, socioeconomic status). Widening gaps = decreasing equity.
Fidelity	Degree to which an intervention is implemented as designed. High fidelity = close adherence to intended design. Low fidelity = substantial deviation from design.

Growth mindset	Belief that abilities can be developed through effort and learning. Contrasts with fixed mindset (belief that abilities are innate and unchangeable). Language and classroom practices can support growth mindset.
Inclusion	Ensuring all students, including those with disabilities or from marginalized groups, participate fully in the classroom. Contrasts with segregation or exclusion.
Pedagogical approach / method	The core design of how children learn and interact (e.g., paired learning vs. individual work; teacher-centered vs. student-centered). More fundamental than curriculum or materials.
Phonics	A method of teaching reading that emphasizes letter-sound correspondence and decoding. Based on understanding how written symbols represent spoken sounds.
RCT (Randomized Controlled Trial)	Gold standard research design where subjects are randomly assigned to treatment (intervention) or control (no intervention) groups, allowing causal attribution.
Scaffolding	Providing support (hints, modeling, practice) that is gradually reduced as the learner gains competence. Essential component of effective instruction.
SEL (Social-Emotional Learning)	Development of competencies like self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.
Structured pedagogy	A coherent package of lesson plans, materials, training, and monitoring designed to standardize and improve teaching quality.

Foreword

For more than a decade, the global education community has known that foundational literacy and numeracy (FLN) is in crisis. Yet, in too many places, our response has been muted, fragmented, and slow—out of step with both the scale of the problem and the permanence of its consequences.

Across low- and middle-income countries, around 70% of 10-year-olds cannot read a simple text with understanding. [1] India's story is equally stark. Primary school enrolment is near-universal, yet foundational outcomes remain far below what children need: only about 27% of Grade 3 students can read at grade level, and only 34% can perform basic arithmetic.[2] National policy has rightly named this as urgent. The National Education Policy (NEP) 2020 declared FLN the "highest priority", warning plainly that "we are in a learning crisis" and calling for universal FLN in primary school by 2025. NIPUN Bharat then set an ambitious 2026–27 deadline. But progress has been halting: between 2017 and 2024, learning gains have been weak, with recent national signals suggesting stagnation rather than acceleration. At current rates of improvement, it would take generations—not years—to achieve universal proficiency, even as the NIPUN timeline rapidly approaches. [3]

COVID-19 did not create this crisis, but it deepened it. According to an Azim Premji University survey, 92% of primary school students lost at least one literacy skill during the pandemic, and 82% lost at least one numeracy skill. [4] UNICEF has described the scale of literacy loss as "nearly insurmountable". [5] And the consequences are not abstract. A child who reaches Grade 3 unable to read is unlikely to "catch up" through regular instruction in Grades 4 and 5. Learning gaps compound. Children develop negative academic identities, disengage, drop out earlier, or spend their school years as passive participants in lessons they cannot access. The private cost—in aspiration, opportunity, and dignity—is immense. The public cost—in foregone productivity, increased health and social problems, and reduced civic participation—is equally large.

Each year of delay in foundational learning does not merely slow progress; it actively reshapes a child's life chances. It compounds inequality as the gap widens between advantaged and disadvantaged learners. It closes economic doors and reduces lifetime earning potential. It undermines democracy when citizens lack the literacy to engage critically. It perpetuates intergenerational poverty when parents without literacy cannot support their children's learning. The World Bank estimates that if all primary-age children achieved literacy, 171 million people would escape poverty;[6] improved literacy is also strongly associated with lower child mortality, greater gender equality, and reduced social crime.[7]

And yet, despite the evidence, we still too often treat FLN as routine "quality improvement", rather than what it is: an operational emergency. When a pandemic hits, governments act in crisis mode—rapid funding shifts, emergency deployment, visible accountability, daily coordination. When there is a security threat, systems respond within days. But when large majorities of children cannot read, we convene committees, launch five-year plans, scatter resources across pilots and competing methodologies—many contradicting one another, few proven at scale—and ask teachers to "do more with less", while communities watch their children fall behind and begin to doubt whether change is even possible.

This paper is written to challenge that normalisation. FLN is not window dressing for the education system. It is the base upon which everything else rests—science, history, citizenship, employability, confidence, and agency. When that base is weak, every reform above it becomes harder, slower, and less equitable. Treating FLN as an emergency is not rhetorical flourish; it is a necessary shift in leadership posture: towards coherence, urgency, disciplined execution, and accountability for outcomes.

There is, however, a reason this foreword ends with hope.

Uttar Pradesh offers an early and important signal that systems can bend the curve when they choose to act with seriousness at scale. Progress there has not come from a single "silver bullet", but from doing the fundamentals well: clearer goals for children's learning, tighter instructional coherence, sustained teacher support, regular measurement, and problem-solving loops that treat data as a tool for improvement—not a judgement. The example of ALfA strengthens that hope further. It points to what becomes possible when evidence-based pedagogy is translated into everyday classroom practice, when teachers are equipped rather than blamed, and when implementation is designed for real-world constraints—at speed, and at scale.

The FLN crisis is real, and it is urgent. But it is not inevitable. If Uttar Pradesh can begin to shift outcomes across a system of this size and complexity, then other states—and other countries—can do the same. The question is no longer whether improvement is possible. The question is whether we will treat foundational learning with the moral urgency and practical seriousness it demands, so that every child gains the dignity of reading, the confidence of numeracy, and the freedom that comes with both.

Executive Summary of Policy Recommendations

1. **Declare FLN a National Emergency**

   - Properly resource the NIPUN Bharat mission

   - Align government resources, curriculum design, and teacher time around FLN, not as an optional add-on

2. **Adopt a National FLN Evaluation Framework**

   - Common metrics across all programs: reading fluency & comprehension, math fluency, equity of outcomes, SEL indicators, attendance, teacher & parent perception

   - Annual Grade 3 sampling (not 3-yearly) at block and district level

   - Standardise testing process across different states, avoiding teachers from nearby schools as exam invigilators and ensuring impartial evaluation

3. **Implement an RRI Pathway for All Pedagogical Innovations**

   - No large-scale adoption without 45–90 day proof of concept

   - Clear ladder from pilot → block → district → state scale

   - Transparent tracking of costs and learning gains at each stage

4. **Protect Teacher Time and Reduce Competing Demands**

   - FLN should not be an add-on but a redesign of early grades (Grades 1–3)

   - Streamline curriculum to protect 12–16 weeks annually for focused FLN instruction

   - Provide continuous, job-embedded training, not one-off workshops

   - Prevent other departments from using teachers as labour.

5. **Promote Pedagogical Pluralism, Not Monopoly**

   - Encourage multiple strong pedagogies to collaborate, compete and improve

   - Support emerging NGOs with evidence and mentorship, not gatekeeping by a few large players

   - Create an open ecosystem where more capable organizations are encouraged, not fewer

   - Ensure rigorous measurement so the best innovations rise to the top

6. **Integrate FLN with Broader Quality Improvements**

   - FLN as a vehicle for equity, inclusion, social-emotional learning, and 21st-century skills—not as a narrow test-score agenda

   - Measure learning breadth (language, math, SEL, agency) not just depth (decoding speed)

7. **Embed FLN into Curriculum and Teacher Training Systems**

   - Once proven, integrate successful pedagogies into official textbooks, lesson guides, and pre-service training

   - Shift from "mission mode" (temporary project) to "normal mode" (permanent system)

1. Why This White Paper? Why Now?

1.1 FLN: An Undeclared Emergency

For the last decade, the international education community has known that foundational learning is in crisis. Yet the response has been muted, fragmented, and slow. India's National Education Policy 2020 declared FLN as the "highest priority," stating clearly: "We are in a learning crisis: a large proportion of students currently in elementary school have not attained foundational literacy and numeracy (FLN). The highest priority of the education system will be to achieve universal foundational literacy and numeracy in primary school by 2025."[8] NIPUN Bharat set an ambitious 2026–27 deadline. Yet between 2017 and 2024, India's progress has been halting. Parakh 2024's Grade 3 Reading and Numeracy figures of 64% and 60% respectively are marginally below the NAS 2017 figures.

Meanwhile, a generation of children has been lost to poor literacy. A Grade 3 student in 2024 who cannot read is unlikely to suddenly acquire literacy in Grades 4 and 5 through "regular" instruction. Learning gaps compound. Children who struggle with foundational skills develop negative academic identities, drop out earlier, or spend their school years as passive participants in classes they do not understand. The private cost to them—in aspiration, opportunity, and dignity—is immense. The public cost—in foregone productivity, increased health and social problems, and reduced citizen participation—is equally large.

Yet we treat FLN as routine quality work, not as an emergency. Consider the contrast: When a pandemic hits, governments act in crisis mode: emergency funding, rapid policy changes, deployment of resources. When there is a political shock—an election, a security threat—systems respond within days. But when 70% of children cannot read, we convene committees, launch 5-year plans, and hope for gradual improvement.

This is a failure of moral urgency and practical leadership. FLN is an emergency, we need to act now.

1.2 The Problem with the Current Narrative

Despite the urgency, the narrative around FLN is distorted by three problems:

First, over-focus on "success stories" and "model districts." Whenever FLN progress occurs in one district or one cluster of schools, it is celebrated as proof that the approach works nationally. A summer camp in one location shows a 0.5 SD gain, and it is recommended for all India. A single district surges ahead, and its methods are held up as the model. Yet when we examine macro data, we often find that gains in these pockets have not translated into system-wide change. The model remains a model; it does not become the norm. We celebrate the exception and ignore the rule: that most schools, most students, most teachers are still struggling with the same problems.

Second, under-reporting of variance, failures, and implementation friction. Most publications highlight the best outcomes. Variance across districts, schools, and students is often downplayed. If a program works for 40% of implementers but fails for 60%, we don't hear about the 60%. If gains in Year 1 are strong but fade by Year 3, that fade is often omitted from the narrative. Implementation never goes perfectly, but reports minimize challenges. Teachers struggle to adopt new methods; students resist change; materials don't arrive; supervising officers have competing demands. These real-world frictions are often not discussed candidly. This means that policymakers, armed with only success stories, make optimistic decisions that fail when they hit reality.

Third, absence of honest, large-scale dialogue and debate. In many contexts, FLN is dominated by a small number of large organizations (both within government and in the NGO space). Emerging organizations with new ideas struggle to get a hearing. Academics who question the dominant approach are sometimes sidelined. Rather than vibrant, collegial debate about "What approaches

work best for whom?" we get defensiveness and competition for territory. The result: we are not learning as fast as we could from each other's successes and failures.

1.3 What This Paper Aims to Do

This white paper has three interconnected aims, carried through each major section of the paper.

First, to present Uttar Pradesh (UP) and Accelerating Learning for All (ALfA) as a case study of what is possible at scale. Between 2021 and 2024, UP—India's most populous state—gained 10 percentage points in Grade 3 reading and mathematics, while the national average gained only 2–3 percentage points.[8] This was not by chance. It resulted from deliberate political commitment, middle-tier strengthening (block-level teams and supervisory systems), and pedagogical innovation. Within Uttar Pradesh, a set of 4 districts that implemented the ALfA pedagogy – Lucknow, Unnao, Barabanki and Shamli – stand out as making even larger gains of 13-14 percentage points. ALfA is presented not as *the* solution, but as an illustrative pedagogical intervention that challenges conventional assumptions about how children learn fastest and most equitably. Other pedagogies may prove equally or more effective; the point is that pedagogy deserves more attention than it currently receives. This aim is developed through the paper's rationale for urgency given the global and Indian FLN crisis (Section 2). The success story of Uttar Pradesh (Section 3) leads to an argument for why pedagogy must come to the centre (Section 4) with ALfA as a case study (Section 5).

Second, to provide a clear analytical frame to judge FLN interventions fairly. Every NGO, state, and researcher uses different assessment tools, grade equivalencies, and definitions of "proficiency." Data is often 5–10 years old, misaligned with post-pandemic realities.[9] We cannot fairly judge which approaches work because we are not measuring the same things. This fragmentation prevents honest comparison, rational funding allocation, and the identification of what actually scales. In response, Section 6 proposes a common evaluation framework and calls for independent, third-party assessment so that approaches can be compared using shared metrics rather than self-selected ones.

Third, to propose a concrete, practical playbook for policymakers and funders. The paper argues that we frequently over-attribute success to precedents without asking whether there could be other paths, while under-examining new approaches that work at scale. To address this, Section 7 sets out a standard Rapid Results Initiative (RRI) pathway for testing, scaling, and embedding pedagogical innovations based on evidence under real system conditions. Section 8 discusses governance and institutional architecture—clarifying roles for national bodies, states, NGOs, and philanthropy—while Section 9 translates the analysis into policy recommendations that operationalise the evaluation and scaling agenda and reinforce pedagogical pluralism. The paper closes by offering realistic path to system-wide change (Section 10).

2. The State of FLN: Global and Indian Picture

2.1 Global FLN Snapshot

Across the world, hundreds of millions of children struggle with basic reading, writing, and arithmetic skills. The problem is particularly acute in low- and middle-income countries, where learning losses due to school closures have left up to 70% of 10-year-olds [in LMICs] unable to read or understand a simple text, up from 57% pre-pandemic.[10] We are not even remotely on track to meet SDG4 by 2030.

The World Bank draws a clear connection between learning poverty and our collective failure to reach the Sustainable Development Goals. Indeed, solving the foundational literacy and numeracy crisis would have a transformative impact.

- If all primary-age children were literate, 170 million people would escape poverty.[11]

- Improved literacy rates are strongly correlated with declines in child mortality.[12]

- Literacy fosters greater social equality.[13]

The problem of low foundational literacy and numeracy is not unique to low income countries. PISA 2022 recorded the largest OECD drop on record since 2018—about 15 points in mathematics and 10 in reading—with shares of students below baseline proficiency.[14] In the United States, NAEP long-term trend results for 13-year-olds declined in 2023 (−9 in math; −4 in reading), especially among lower performers.[15] Weak adult skills compound the problem: across the OECD, 18% of adults fail to reach baseline proficiency in core text and quantitative processing.[16] These deficits depress economic productivity, widen inequality, and undermine civic participation.

Given the huge benefits of literacy, policymakers are searching for solutions. Multilateral agencies such as UNICEF and the World Bank are increasingly paying attention to the quality of early childhood and primary education, as a prerequisite for socio-economic development.[17] Learning poverty by world region has increased dramatically: in 2015, approximately 53% of 10-year-olds were in learning poverty globally. By 2022, this had risen to 70%, with particularly severe impacts in Sub-Saharan Africa (81%), South Asia (75%), and the Middle East and North Africa (66%).[18]

2.2 India's FLN Landscape

India has made great strides towards universal primary school enrolment, with some 97% of children now enrolled in primary school.[19] However, the increase in enrolment has not been matched by a commensurate rise in learning outcomes. According to the Annual Status of Education Report (ASER), only 27% of Grade 3 students can read a Grade 2 level text, and 34% can perform a 2-digit subtraction.[20] Even by Grade 5, these figures remain worryingly low: 49% (reading) and 56% (subtraction).

ASER also sheds light on the low rates of learning across different grades. Converting the test to a 'reading scale' ranging from 0 (not even letters) to 4 (Grade 2 level), we find that children in Grades 2 and 3 make only 0.6 points of progress in a year. A similar exercise for maths yields equally poor results (Figure 1)

Put differently, the median child in Grade 1 can only recognize letters but not words. In both Grades 2 and 3 the median child can recognize words (but not read a Grade 1 level text). In Grade 4 & 5 the median child can read a Grade 1 level text (but not read a Grade 2 level text). It is only by Grade 6 that the median child can read a

Figure 1: Mean reading and maths level across different grades on 4-point scale; ASER 2024

Grade 2 text (Figure 2). In maths, the sluggish rates of learning are even starker, with the median child in Grades 2, 3 and 4 able to recognize 2-digit numbers but not perform subtraction; and the median child in Grades 5, 6, 7 and 8 able to perform subtraction but not division (Figure 3).
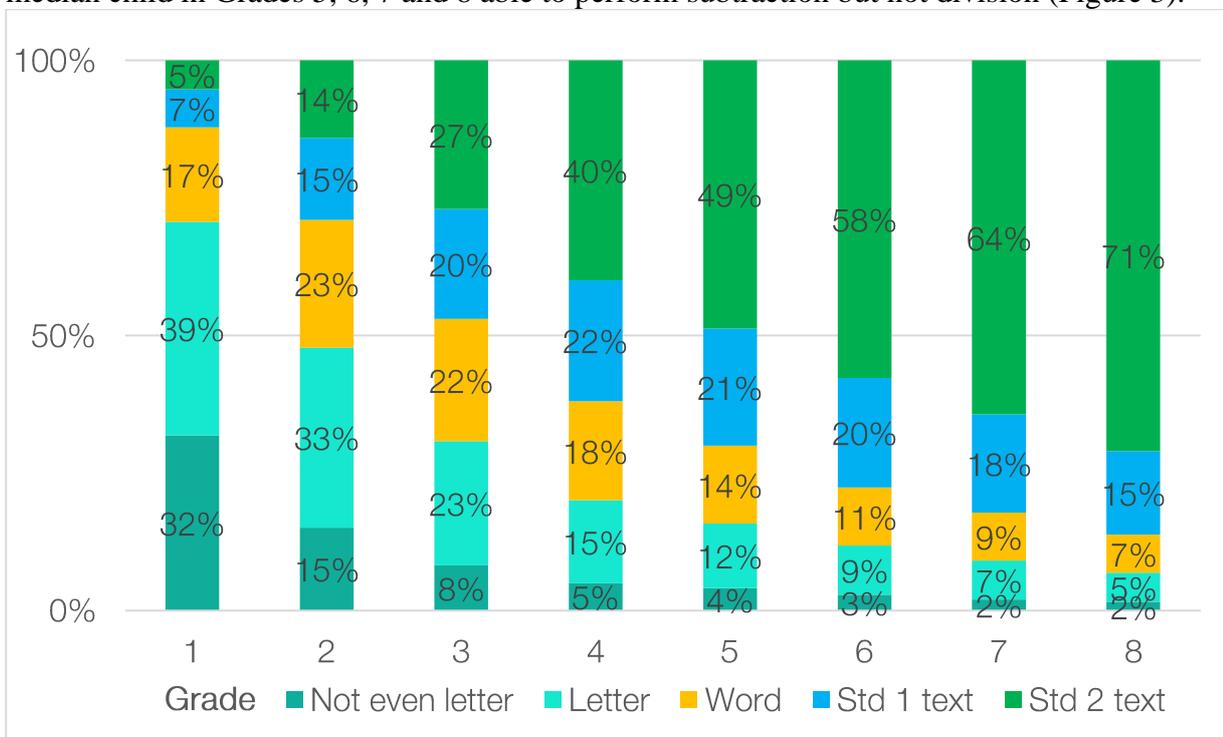
Figure 2: Reading performance of students across different grades, ASER 2024.
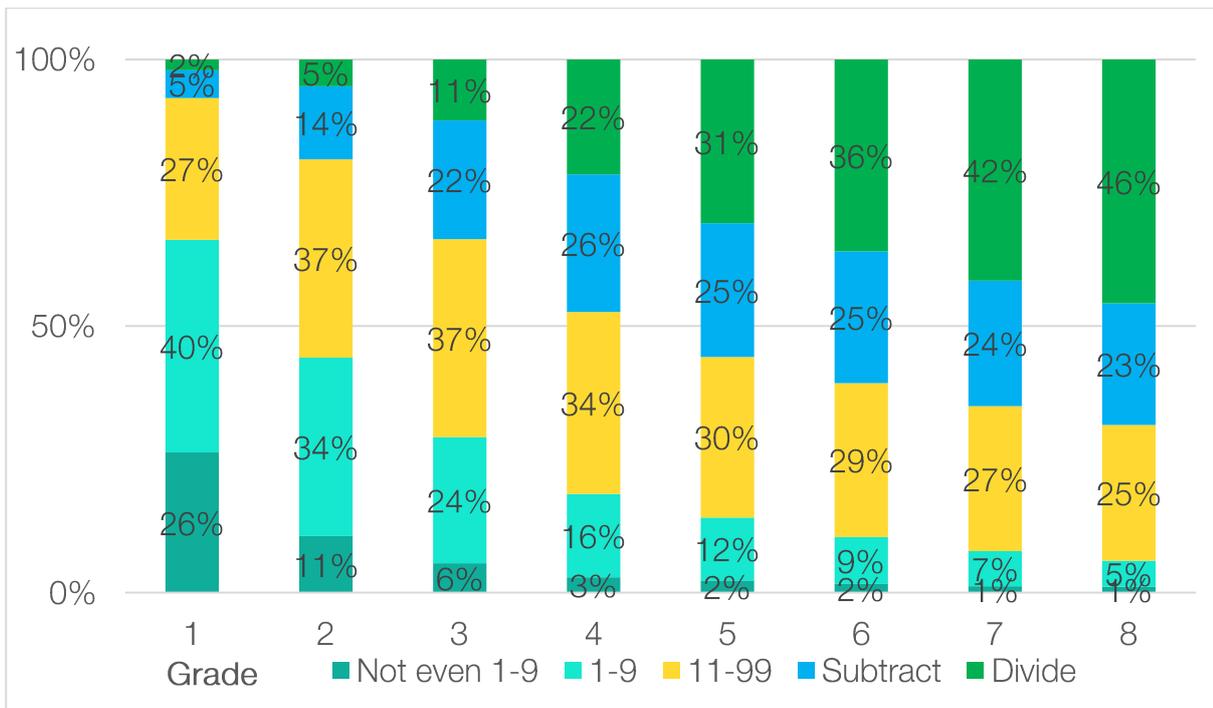
Figure 3: Arithmetic performance across different grades, ASER 2024.

Similarly dismal statistics are found in a wide variety of surveys, conducted by both NGOs and governments.[21] According to the National Achievement Survey (NAS), language & mathematics scores for Grade 3 decreased from 329 points in 2017 to 315 points in 2021, while Grade 5 scores dropped from 315 to 297.[22] Parakh 2024 showed a modest improvement, but remains below 2017 levels.

2.3 Why Incrementalism is Not Enough

At current rates of progress, India will not meet NIPUN Bharat targets. The evidence is stark: analysis of ASER data shows that the proportion of Government Grade 3 students able to read a Grade 2 level text increased only from 17% (2014) to 23% (2024)—a decade of minimal progress. Meanwhile, ability to perform subtraction increased from 17% to 28% over the same period. At these glacial rates, it would take 70–130 years to reach NIPUN goals.
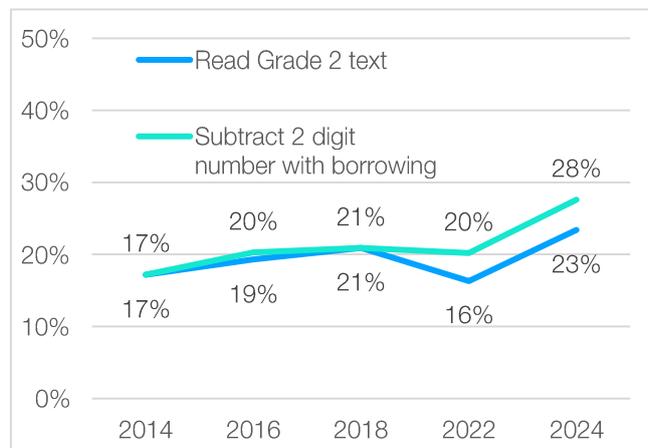
Figure 4: Proportion of Government Grade 3 students able to perform foundational tasks, over time

Persistently low learning levels are no longer a slow-moving "quality challenge". They constitute an emergency—because the costs are compounding, the window for action is narrow, and the consequences are structural and long-term.

First, the scale is massive. In India alone, more than 80 million children in Grades 1–3 are building their schooling on weak or broken foundations. Globally, the number exceeds 700 million. This is not a marginal problem affecting a small subgroup; it is a system-wide failure at the base of learning, impacting entire cohorts.

Second, India faces demographic urgency. While India's population is ageing, the next 15 years will still include a large cohort of primary-age children. This is a one-time window: if these children

do not acquire foundational literacy and numeracy now, they will enter adolescence and adulthood without the skills required for productive work, informed citizenship, and lifelong learning. This gap cannot be "fixed later" at population scale—remediation becomes far more expensive and far less effective.

Third, the cost of delay is exponential, not linear. A child who falls behind in Grade 1 by even a few months often struggles to access classroom instruction thereafter. By Grade 3, the gap is frequently too wide to close through regular teaching alone. The system is then forced into intensive, high-touch remediation—costly, logistically difficult, and rarely universal. In contrast, prevention—ensuring children achieve FLN early—delivers far greater returns at far lower cost.

Fourth, the window for foundational skill-building is narrow. Ages 4–8 are critical for language development and early numeracy. When children miss this developmental window, later learning becomes slower and harder. The common assumption that children will "catch up later" is not a strategy—it is a gamble that most children, especially the most marginalised, do not win.

Fifth, FLN is the gateway to secondary education and everything beyond it. A child without FLN cannot meaningfully engage with the secondary curriculum. Weak foundations early translate into weak academic progression later—and, ultimately, weaker employability, reduced health literacy, lower civic participation, and constrained personal agency. In other words, weak FLN is not only an education problem; it becomes an economic, health, and democracy problem. The costs compound across a lifetime.

Sixth, the crisis is inseparable from inequality. FLN gaps are strongly correlated with caste, gender, disability status, and geography. Children from marginalised communities fall behind earlier, fall behind further, and recover least often. Incremental progress therefore produces only incremental reductions in inequality—an unacceptable pace when the stakes are lifelong and intergenerational.

Finally, the economics are unambiguous: the cost of solving FLN is small; the cost of ignoring it is enormous. A focused FLN programme (for example, ALfA) can cost approximately **$4 per child**, compared to **$20–27** for TaRL and around **$8** for structured pedagogy (Copenhagen Consensus, 2023). Even when programmes include training, monitoring, and learning materials, costs rarely exceed **$10–15 per child**. Set against this, the costs of low literacy are staggering: reduced lifetime earnings (estimated at roughly **$1,000 per year** per illiterate person), alongside higher health and social costs. The financial case aligns with the moral case—addressing FLN is among the highest-return investments available.

Taken together, these realities point to one conclusion: **FLN is an operational emergency.** It demands urgency not because the problem is new, but because the opportunity to reverse it—at scale, within the critical learning window, and before demographic momentum locks in long-term consequences—is closing fast.

Given the urgency of the FLN crisis, we must urgently search for alternatives that offer hope for rapid transformation of learning outcomes. Uttar Pradesh is one such case study.

3. Uttar Pradesh as a Case Study

3.1 UP's FLN Journey in Brief

Uttar Pradesh, India's most populous state with over 240 million people and approximately 23 million school-age children. The state has long been considered an "underperformer" in education policy circles, scoring below the national average in 2017 and 2021 National Achievement Survey.

Yet between 2021 and 2024, UP made a dramatic turnaround:

- Grade 3 language: 58% (2021) → 68% (2024), a gain of +10 percentage points

- Grade 3 mathematics: 54% (2021) → 64% (2024), a gain of +10 percentage points

This is remarkable because:

- The gain of 10 pp is 4× the national average (2–3 pp)

- It occurred despite the challenges of the post-COVID recovery period

- It occurred across a large, diverse state with 75 districts

This was not accidental. It resulted from deliberate, sustained policy commitment and pedagogical innovation. Let's understand how.

3.2 Macro-Level Reforms That Matter

Political and Bureaucratic Commitment:

In September 2019, Chief Minister Yogi Adityanath launched "Mission Prerna" with the singular objective that all 1.2 crore children in UP's primary schools achieve foundational literacy and numeracy.[23] The state publicly set quantifiable "Prerna Lakshya" (learning goals) for each grade 1–5. For example, by Grade 3, a child was expected to read at a fluency of 30 words per minute and solve 75% of single-digit addition and subtraction problems. These targets were widely communicated through teacher WhatsApp groups, wall posters, and voice messages, ensuring every stakeholder knew what the mission aimed for and why it mattered.

Key leaders translated policy into action:

- Shri Vijay Kiran Anand (IAS), Director General of School Education (2020 onward), rolled out foundational reforms swiftly and tracked accountability. During COVID closures, he kept the mission alive through home-based learning initiatives ("Prerna e-Pathshala"). As schools reopened, he launched Prerna Gyanotsav, a 100-day back-to-school FLN drive to mobilize all stakeholders.

- Successive DGSEs (Ms. Kanchan Verma, now Ms. Monika Rani) and Principal Secretaries of Basic Education maintained continuity and reinforced accountability systems.

Middle-Tier Strengthening:

- UP created a 4,000+ strong network of Academic Resource Persons (ARPs) tasked with visiting schools regularly to coach teachers and monitor FLN. This middle tier is critical. It transforms policy into practice.[24] Without strong block and district leadership, even the best pedagogy falters.

- Block-level data systems and dashboards allowed real-time monitoring of progress. Monthly reviews at block and district levels ensured rapid feedback and corrective action. This is not theoretical; it is operational management translated from crisis response (COVID) into an institutionalized system.

Curriculum and Materials:

UP provided textbooks and workbooks designed specifically to meet NIPUN competencies. The curriculum included:

- Foundational Stage curriculum for Grades 1–2, emphasizing FLN

- Detailed teacher guides with daily lesson plans

- Student workbooks with age-appropriate activities
- Structured progression from letters to words to sentences (in Hindi) and from counting to basic operations (in mathematics)

Teacher Training and Support:

The state invested in training ARPs, block coordinators, and teachers. Training was not one-off workshops but ongoing, job-embedded support through:

- Initial 3–5 day training for teachers in new materials and methods
- Weekly "grow circles" where teachers reflected on implementation challenges
- Peer mentoring within schools
- WhatsApp groups for sharing ideas and troubleshooting

3.3 Breaking Down the Gains by NGO and Dsitrict

UP's 10-point gain raises a question: How much of this gain is attributable to state-level reforms (Mission Prerna, curriculum, teacher training) versus to NGO partnerships?

The answer is complex. Both played a role. State-level reforms created the enabling environment:

- Clear political signal that FLN is the priority
- Middle-tier strengthening (ARPs, block teams, data systems)
- Curriculum and materials aligned to NIPUN
- Teacher training and support systems
- Monthly data review and corrective action

Without these systems, NGOs could not have worked effectively.

NGO partnerships added pedagogical innovation. Three major NGOs worked in different geographies within UP, each with different approaches (Table 1). The variation in progress from NAS 2021 to PRS 2024 is also shown graphically in Figure 5. The varied results indicates that not all pedagogies are created equal. To use a travel metaphor – if the actions of the state created a road towards NIPUN, then different pedagogies represent various vehicles driving along that road. Some vehicles have been able to race towards that goal faster than others.

Table 1: Overview of three major NGOs working on FLN in Uttar Pradesh

NGO	Districts	Grades	Approach	Learning Gain (2021–2024)
Dignity Education Vision International (DEVI)	Shamli, Lucknow, Barabanki, Unnao	1–5	45-day structured FLN module + paired learning	+13–14 pp
Language & Learning Foundation (LLF)	Bhadohi, Chandauli, Fatehpur, Shravasti, Varanasi	Balvatika –3	Hindi literacy + supporting numeracy	+8–9 pp

Central Square Foundation (CSF)	Agra, Aligarh, Ghaziabad, Gorakhpur, Jhansi, Sitapur	1–3	Structured pedagogy with lesson plans & materials	+6–7 pp

The variation in gains across districts implementing different approaches suggests that pedagogy matters: The ALfA approach, with its paired learning and known-to-unknown approach, shows the largest gains. While LLF & CSF's work is valuable for strengthening education systems, this did not in and of itself lead to gains greater than the state average, in the districts they primarily serve.
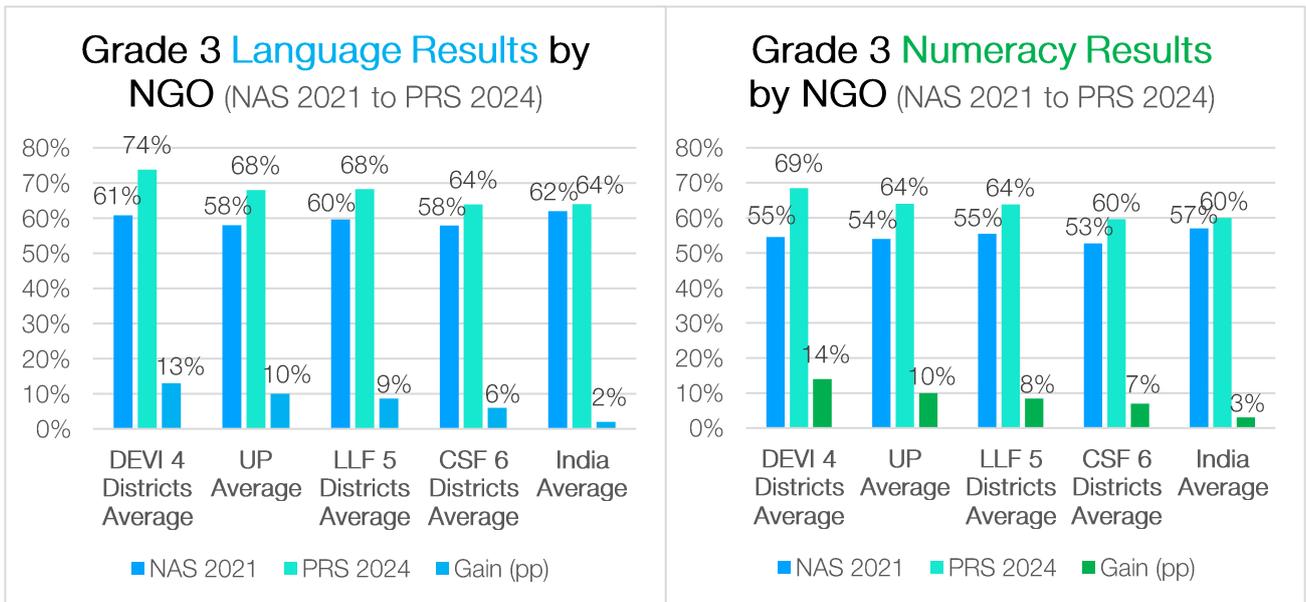
Figure 5: Grade 3 Language and Maths Results in NAS 2021 & PRS 2024

Table 2: District-wise variation in NAS 2021 to Parakh 2024 Gains

NGO	District	Grade 3 Language			Grade 3 Numeracy		
		NAS 2021	PARAKH 2024	Gain	NAS 2021	PARAKH 2024	Gain
CSF	Agra	54%	56%	2%	49%	52%	3%
CSF	Aligarh	65%	72%	7%	60%	69%	9%
CSF	Ghaziabad	60%	71%	11%	54%	65%	11%
CSF	Gorakhpur	56%	65%	9%	52%	61%	9%
CSF	Jhansi	60%	58%	-2%	54%	54%	0%
CSF	Sitapur	52%	61%	9%	47%	57%	10%
CSF Average		**58%**	**64%**	**6%**	**53%**	**60%**	**7%**
LLF	Bhadohi	54%	66%	12%	50%	62%	12%
LLF	Chandauli	59%	63%	4%	55%	59%	4%
LLF	Fatehpur	71%	72%	1%	67%	68%	1%
LLF	Shravasti	55%	73%	18%	51%	69%	18%
LLF	Varanasi	59%	67%	8%	54%	61%	7%
LLF Average		**60%**	**68%**	**9%**	**55%**	**64%**	**8%**
DEVI	Barabanki	58%	74%	16%	53%	67%	14%
DEVI	Lucknow	55%	72%	17%	47%	66%	19%
DEVI	Shamli	65%	79%	14%	59%	76%	17%
DEVI	Unnao	65%	70%	5%	59%	65%	6%
DEVI Average		**61%**	**74%**	**13%**	**55%**	**69%**	**14%**
UP Overall		**58%**	**68%**	**10%**	**54%**	**64%**	**10%**
India Overall		**62%**	**64%**	**2%**	**57%**	**60%**	**3%**

For a more detailed explanation of the different pedagogical approaches of CSF, LLF and DEVI, see the report Learning from Uttar Pradesh: A Playbook for Foundational Learning Reform,[25] or a summary in Annex A.

The significant variations between these clusters of districts indicates the central role of different pedagogy implemented by various NGOs.

4. The Central Role of Pedagogy

4.1 Structured Pedagogy and Pedagogical Quality

Structured Pedagogy typically refers to a holistic package of:

- Detailed lesson plans, sometimes scripted, specifying what teachers must do each period

- Standardized materials (textbooks, workbooks, teaching-learning materials) aligned to a common curriculum

- Teacher training in how to use the materials and follow the lesson plans

- Monitoring to ensure teachers adhere to the structure

The theory is sound: many teachers, especially in low-resource contexts, struggle to plan lessons and organize learning on their own. Giving them a clear structure reduces their burden and standardizes quality.

However, our key claim is that the efficacy of structured pedagogy is heavily contingent on the inherent quality of the pedagogy that is being so structured. Well structured lesson plans, standardized material, rigorous teacher training and comprehensive monitoring will all be in vain if the pedagogy that has been so structured is rote-learning based, isolates students and deadens them intellectually.

Current practice in many Indian schools conflates structure with content delivery. When we say "structured pedagogy," we often mean "scripted, teacher-led, textbook-focused instruction." The assumption is that the structure itself—the daily plan, the sequence of topics—is the main variable that affects learning. But this misses something critical: Even within a structured framework, the pedagogical design shapes learning outcomes.

4.2 The Hidden Assumption

Most FLN programs operate under a hidden assumption: Textbooks and existing classroom patterns are treated as fixed, and FLN is "inserted" as an add-on.

For example:

- "We have this Grade 1 textbook. How do we help children who aren't ready for it? Let's add a remedial class."

- "We have this curriculum to cover. But children are falling behind. Let's add a summer camp."

- "Teachers are overwhelmed. Let's add a simplified lesson plan."

The underlying assumption is that the regular classroom will continue much as before—teacher-led, textbook-focused, whole-class instruction—while FLN is bolted on as an additional intervention.

But this creates problems:

1. FLN remains a "special" program, not the norm

2. It adds to teacher burden rather than reducing it

3. It doesn't change the underlying pedagogy, so students still struggle in regular classes even after an FLN intervention

4. It's temporary and dependent on external support, rather than embedded in the system

A different approach: Redesign the pedagogy of the regular classroom itself so that FLN becomes intrinsic, not an add-on.

4.3 What We Lose by Ignoring Pedagogy

When we focus narrowly on curriculum and structure while ignoring pedagogy, we lose:

1. Speed and Equity: A pedagogy that relies on teacher explanation works well for children who are already listening and engaged. But it is slow for the bottom 70–80% of learners—those who zone out, feel lost, or don't benefit from whole-class instruction. Peer-based pedagogies, where children explain to each other and learn in mixed-ability pairs, can be faster and more equitable. Every child, even the "struggling" one, has a chance to both teach (and deepen their own understanding) and learn (from classmates).

2. Inclusion: A classroom where only the teacher talks and writes leaves out children who are shy, have hearing difficulty, or lack confidence. A classroom where children work in pairs, ask

questions, and create tasks for each other includes everyone. Disability inclusion, gender inclusion, and social inclusion all improve.

3. Social-Emotional Learning: If FLN is just about decoding speed or arithmetic fact fluency, children don't develop communication, collaboration, or agency. A pedagogy designed to build these skills alongside FLN creates more well-rounded learners.

4. Teacher Autonomy and Professional Growth: Scripted, rigid lesson plans can feel de-professionalizing. Teachers follow them mechanically, without understanding the "why." A pedagogy that gives teachers flexibility within a clear process—"Here's how children learn; you adjust to your context"—respects teacher expertise and allows growth.

5. Sustainability: A program that depends on external motivation (researcher visits, NGO support) will not sustain once external support ends. But a pedagogy that children enjoy, that teachers find effective, and that fits within existing resources can become institutionalized.

The next section unpacks the power of pedagogy by considering the example of ALfA, not as "the solution" to FLN, but rather as an indicative example. Other pedagogies may be equally or more effective. The point is that pedagogy itself deserves more attention in FLN strategy.

5. ALfA as an Illustrative Pedagogical Intervention

Accelerating Learning for All (ALfA) is a pedagogy that emerged from over 22 years of experimentation in informal literacy classes in Lucknow's slums, private schools, and international settings. It was formally launched in government school pilots in 2022. Since 2022, ALfA has grown from 20 schools to rolling out in stages across 35,000 schools globally, with implementations in India, Ghana, Peru, Maldives, Malaysia, Kenya, Philippines, and the USA (See Annex B for more information on international implementations of ALfA).[26]

5.1 Key Pedagogical Features

1. Paired Learning and Peer Teaching

Children work in pairs, randomly selected each day (not ability-based). In each pair, one child is the "reader" or "doer," and the other is the "checker" or "questioner." They take turns.

Example (Literacy): One child reads a simple sentence while the partner listens and checks. Then they swap roles.

Example (Numeracy): One child solves a simple addition problem using concrete objects (sticks, beans) while the partner watches and checks. Then they swap roles.

Why this works:

- Pair work increases engagement: every child is active every minute, not waiting for their turn

- Peer explanation deepens understanding: explaining to a classmate forces clarity

- Mixed-ability pairs prevent stigma: the "struggling" child sometimes teaches, sometimes learns, from mixed partners

- Peer correction is less threatening than teacher correction

- Reduces teacher workload: children help each other, freeing the teacher to support those who need more help

2. Intensive, Accelerated Cycles (45-Day or 90-Day Bursts)

ALfA typically runs for 45–90 days (one to two terms), with 1–2 periods per day dedicated to ALfA, while children continue with regular textbooks for other subjects. After the intensive cycle, children return to regular textbooks for all subjects, with much stronger foundation skills.

The standard model consists of 45 working days, with one hour dedicated to literacy and one hour to numeracy each day.26 An intensive model of 30 working days with full-day FLN focus is also available.

Why this works:

- Intensity matters: children make faster progress with focused effort
- Time-bound: it's a "push" for 45 days, not a perpetual add-on
- Sustainable: once children are stronger, teachers don't need to devote extra time
- Momentum: children and teachers see rapid progress, which motivates continued effort

3. Specific Pedagogical Sequence: The Four-Step ALfA Process

Step 1: Teacher-Child Demonstration

- The teacher models the activity (e.g., decoding a word from a picture)

Step 2: Peer Demonstration

- Two or three strong students demonstrate to the class
- This builds momentum and shows peers what's expected

Step 3: Pair Work

- All children work in pairs, practicing the same activity
- The teacher and aides circulate, provide prompts, and correct errors

Step 4: Independent Questioning

- Pairs create their own tasks for each other (e.g., "I'll show you a picture; you tell me the sound")
- This develops agency and deepens understanding

This sequence is repeated daily with new content, gradually building complexity.

4. Literacy Approach: From Pictures to Sounds to Blending

ALfA literacy uses highly visual, thin booklets (72 pages total across 3 booklets to reach FLN) with illustrations and minimal text.

The sequence is:

- Day 1–2: Pictures and Sounds – "Apple: /a/. Ball: /b/."
- Day 3–5: Blending – Children blend sounds into words: /b/ + /a/ + /t/ = "bat"
- Day 6+: Reading – Children read simple, meaningful sentences: "The bat is big."

This is different from traditional methods that start with the alphabet song ("A, B, C...") and rote memorization. ALfA uses a "known-to-unknown" approach: children derive the sound from the

known picture (Apple – /a/) and learn to decode letters and blend to form words, enabling them to read meaningful words from Day 1.[27]

5. Numeracy Approach: Kinesthetic → Concrete → Abstract

ALfA numeracy uses a progression (similar to NIPUN's ELPS framework):[28]

- Kinesthetic: Claps, snaps, jumping (representing numbers)

- Concrete: Physical objects (sticks, beans, leaves, etc.)

- Pictorial: Drawings representing objects

- Abstract: Written symbols and numbers

Example: To teach "addition," children might:

- Clap 3 times, then clap 2 times (kinesthetic)

- Place 3 beans in one heap, 2 in another, then count the total (concrete)

- Draw 3 circles and 2 circles, then count (pictorial)

- Write 3 + 2 = 5 (abstract)

This progression builds deep understanding, not just procedural fluency.

6. Language of Encouragement, Not Labels

ALfA emphasizes language that builds a growth mindset:

- "You're still learning" (not "You're slow")

- "Let's try that together" (not "That's wrong")

- "What did you notice?" (inviting reflection, not judgment)

This is deliberate. In many classrooms, children are labeled "weak" or "bright," and these labels become self-fulfilling prophecies. ALfA's language resists that.

7. Built-in Equity: Mixed Ability, Shared Roles

Because pairs are random and roles alternate:

- No child is permanently "the helper" or "the one being helped"

- All children take turns explaining and listening

- Inclusion is built-in, not added later

- The classroom is less divisive than ability-based grouping

This addresses concerns about ability-based grouping approaches like TaRL, which can have negative social impacts. As quoted by one Delhi teacher, "Students in the 'lower ability' group have reported being shunned and mocked by those in the 'higher ability' group."[27]

5.2 Evidence from UP and Other Contexts
Evidence from UP (NAS 2021 & Parakh 2024):

As described in Section 5.3, UP's DEVI-implementing districts (Shamli, Lucknow, Barabanki, Unnao) achieved:

- Language gains: +13–14 percentage points (2021–2024), compared to UP state average of +10 pp

- Mathematics gains: +14 percentage points, compared to UP state average of +10 pp

Within individual competencies, there are huge gains in specific competencies (for instance, length and pattern recognition), while others are smaller but still significant. Strikingly, across the different NIPUN competencies, the gains in DEVI's districts are larger than in LLF and CSF districts, which also had state support but different pedagogies.
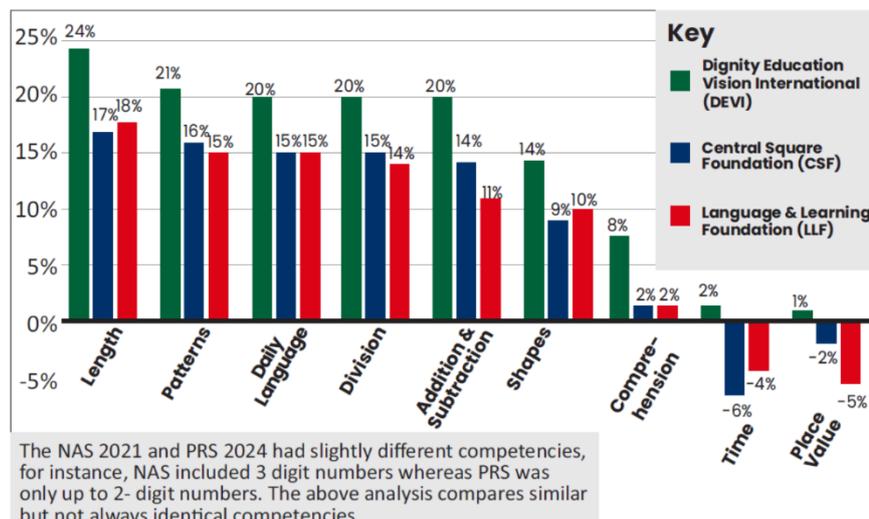
Figure 6: Gains in different individual competencies betweeen NAS 2021 & PRS 2024

Evidence from RCTs:

The first ALfA RCT, in late 2022 with 10 treatment & 10 control schools of Shamli, UP, gathered significant attention. It was the subject of a chapter of the book, *Rebuilding Resilient Education Systems after the Covid-19 Pandemic,* edited by HGSE Professor Fernando Reimers. The Harvard team found effect sizes of 0.23 (Grade 3) to a huge 0.89 (Grade 5) after just a 45-day implementation.[28]

Third-party RCTs in ALfA-implementing schools in India have found effect sizes of:

- Mathematics: 0.39 SD (weighted average across districts), equivalent to about 31 percentage point gain in 45–90 days in treatment schools vs. 20 pp in control schools

- Hindi/Language: 0.59 SD, equivalent to about 26 percentage point gain in treatment schools vs. 10 pp in control schools

For context, a typical year of schooling produces 0.15–0.21 SD gains.[29] ALfA's effect size is the equivalent of 2–4 years worth of 'business as usual' schooling.

Table 3: Results from ALfA RCTs in India

District	Number of Students in intervention	Mathematics				Hindi			
		Implement ation gain (% point)	Control gain (% point)	Effect size (SD)	Multip lier ratio[1]	Implementat ion gain (% point)	Control gain (% point)	Effect size (SD)	Multiplier ratio
Shamli	43,787	30%	22%	0.28	1.36	20%	12%	0.29	1.67
Lucknow	24,837	30%	15%	0.68	1.95	30%	2%	1.28	13.28
Barabanki	8,852	43%	33%	0.31	1.30	45%	19%	0.46	2.18
Unnao[2]	5,947	20%	16%	0.13	1.24	20%	16%	0.13	1.24

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[1] Multiplier Ratio = Treatment Gain / Control Gain. For instance, a multiplier ratio of 1 means no difference in learning rates, and a multiplier ratio of 2 means that treatment group students had a rate of learning double that of the control group.
[2] Unnao's testing was conducted using a combined paper which measured both Hindi and Mathematics skills, disaggregated data was not available.

Nandurbar	283	51%	2%	1.51	25	35%	2%	2.28	17.5
Ranchi	293	22%	9%	0.47	2.45	47%	26%	0.46	1.81
Weighted average	**85,339**	**31%**	**20%**	**0.39**	**1.54**	**26%**	**10%**	**0.59**	**2.48**

Table 4: Results from ALfA RCTs Internationally

District	Number of Students in intervention	Mathematics				Language			
		Implement ation gain (% point)	Control gain (% point)	Effect size (SD)	Multip lier ratio[3]	Implementat ion gain (% point)	Control gain (% point)	Effect size (SD)	Multiplier ratio
Maldives	665	11%	9%	0.19	1.22	6%	2%	0.3	3.5
Ghana Phase 1	244	No numeracy component				13%	5%	0.31	2.5
Ghana Phase 2	360	12%	4%	0.43	3.3	17%	7%	0.6	2.4
Weighted average	**1,268**	**11%**	**6%**	**0.27**	**1.91**	**11%**	**4%**	**0.41**	**2.46**

Long-form data on test results from ALfA school implementations is available here.

Caveats:

- Most evidence is 1–2 years of implementation. Longer-term sustainability needs more study.

- Implementation quality varies. Well-supported implementations show larger gains.

- Some districts (e.g., Unnao in UP) show smaller gains, possibly due to implementation delays or other local factors.

5.3 What ALfA Suggests About FLN Strategy

The ALfA experience, combined with evidence from other pedagogies, suggests several insights:

1. It is possible to dramatically speed up learning for all children, not just the top 20–30%.

Traditional teaching often leaves the bottom 70% behind. ALfA shows that with peer support, concrete materials, and an accelerated pace, even the "lowest" children can make rapid progress. Effect sizes of 0.4–0.6 SD are achievable, not exceptional.

2. Speed and equity are not opposed; they can reinforce each other.

Some worry that "accelerating" learning means pushing children too fast, creating stress. But ALfA experience suggests the opposite: when children are engaged, supported by peers, and making visible progress, they thrive. Stress comes from not understanding, not from intellectual challenge. A slower pace that leaves children behind may feel "less pressuring" but is more demoralizing.

Teachers in ALfA implementations have reported: "When we explain things to the children, it takes time for them to understand. But when they are learning from each other, it is much easier for them" (Nitin Kumar, assistant teacher, UPS Jaganpur, Shamli). Another teacher noted: "Kids who earlier weren't interested are now enjoying. I wish that this technique would be used everywhere, for every school and every child" (Alla Rakha, principal, PS Gari Pukta).[30]
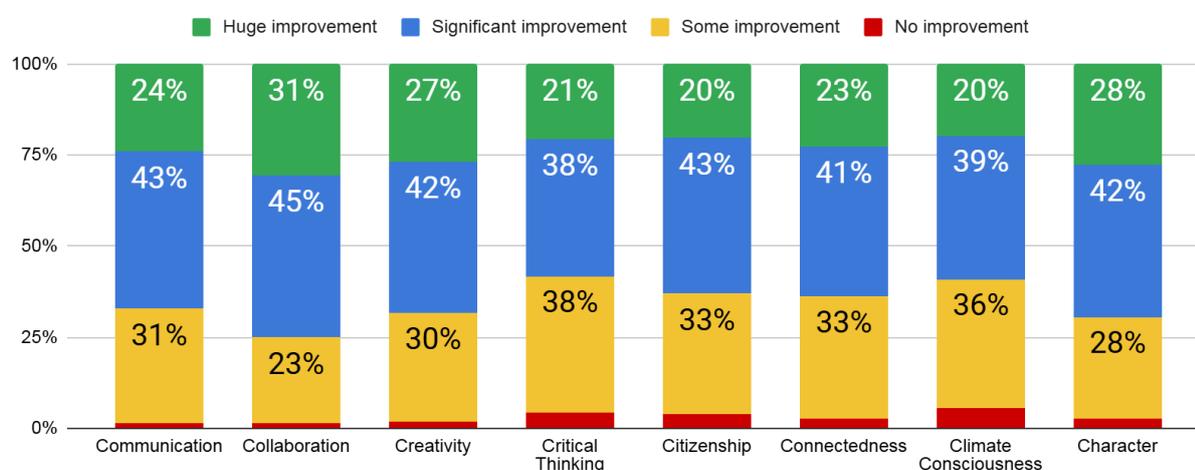
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[3] Multiplier Ratio = Treatment Gain / Control Gain. For instance, a multiplier ratio of 1 means no difference in learning rates, and a multiplier ratio of 2 means that treatment group students had a rate of learning double that of the control group.

3. Pedagogy can be designed to simultaneously improve FLN and broader life skills.

A pedagogy that uses paired learning, peer teaching, and creative questioning naturally builds communication, collaboration, and agency. These are not add-ons; they emerge from the pedagogical design. This is more efficient than trying to "integrate SEL" into an otherwise drill-based curriculum.

ALfA explicitly embeds the "8C Skills"—collaboration, communication, critical thinking, creativity, citizenship, character, connectedness and climate conciousness—into the learning process itself, not as separate activities. Paired learning inherently builds collaboration and communication, while the process of children asking each other questions develops creativity and critical thinking. A November 2025 survey of over 1,500 government teachers in UP and HP found that 59%-76% believed paired learning was making a 'significant' or 'huge' improvement to their students' 21st century skills.

Has ALfA paired learning made any difference to students' 21st century skills?

Legend: Huge improvement (green), Significant improvement (blue), Some improvement (yellow), No improvement (red)

Skill	Huge improvement	Significant improvement	Some improvement
Communication	24%	43%	31%
Collaboration	31%	45%	23%
Creativity	27%	42%	30%
Critical Thinking	21%	38%	38%
Citizenship	20%	43%	33%
Connectedness	23%	41%	33%
Climate Consciousness	20%	39%	36%
Character	28%	42%	28%

4. Structured pedagogy and pedagogical flexibility can coexist.

ALfA provides a clear structure: the four-step process, the daily sequence, the content. But teachers have flexibility in pacing, in how they respond to children's questions. This is "structure with process, not rigid scripts."

5. Cost-effectiveness matters for scale.

ALfA costs approximately $4 per child (Annex C), far less than TaRL ($20–27 per child) or some other interventions ($8–27 per child). Low cost doesn't mean low quality; it means materials are thin, teacher training is brief, and the approach leverages existing resources (textbooks, local materials). This makes it scalable to even the poorest contexts. This extraordinarily low cost, combined with strong effect sizes, makes ALfA a compelling candidate for system-wide adoption.

Table 5: Benefit-Cost Ratios for selected 'Best Buys' in Education[31]

FLN 'Best Buys'	Per Child Cost (US$)	Learning Benefit (SD)	Years of Schooling Equivalent[4]	Economic Benefit / Child (US$)	Benefit: Cost Ratio
Teaching according to learning level – without technology	$20	0.15	0.8	$900	**48**

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[4] Assuming a business-as-usual school year leads to 0.15-0.21 learning gains, following Evans & Yuan. 2019. Equivalent Years of Schooling: A metric to Communicate Learning Gains in Concrete Terms. World Bank Policy Research Working Paper.

Teaching according to learning level – with technology	$27	0.28	1.5	$1700	**65**
Structured Pedagogy	$8	0.13	0.7	$800	**105**
Accelerating Learning for All	**$4**	**0.48**	**2.6**	**$2400**	**800**

Figure 7: Cost-efficacy scatterplot for leading FLN programs compared to a year of business-as-usual schooling

Despite the commendable effort by the World Bank GEEAP and Copenhagen Consensus to compare the effectiveness of different pedagogies, this exercise remains challenging due to significant gaps in our measurement methodologies, as unpacked in the next section.

6. FLN Pedagogies: A Call for Comprehensive Common Comparisons

International responses to the FLN crisis have included a variety of approaches, from 'Science of Reading' to Teaching at the Right Level. However, no single approach has proven to be a "silver bullet." Rather, success seems to depend on a combination of factors: political commitment, adequate resources, well-trained and motivated teachers, appropriate pedagogy, and regular monitoring with rapid feedback.

6.1 A Crowded Landscape of Pedagogies

The FLN field includes numerous competing pedagogies:

1. Science of Reading / Phonics-Focused Approaches
Based on neuroscience research (particularly from OECD contexts), these emphasize explicit, systematic instruction in letter-sound correspondence, decoding, and fluency before comprehension. Examples: synthetic phonics programs, structured literacy.

2. Teaching at the Right Level (TaRL)
Focuses on assessing students' current level, grouping them, and providing targeted instruction. Used widely in India and Africa. Implemented in partnership with Pratham in states including Andhra Pradesh, Uttar Pradesh, Punjab, Himachal Pradesh, Bihar, Madhya Pradesh, Karnataka, and Jammu & Kashmir.

3. Structured Pedagogy
A holistic package of detailed lesson plans, materials, training, and monitoring. Examples: Central Square Foundation, Language & Learning Foundation, NIPUN curricula.

4. Locally-Developed Evidence-backe Methods (Including ALfA and Others)
Pedagogies developed through years of local experimentation, sometimes based on specific linguistic or cultural contexts. Examples: ALfA, STEP (in some African contexts), other locally adapted methods.

5. Play-Based and Activity-Centered Approaches
Emphasize learning through play, exploration, and hands-on activity, often in early grades (Grades 1–2).

6.2 Research Gaps and "Reading Wars"
The field is characterized by significant research gaps and contested claims:

"Reading Wars": In the Global North (US, UK, Australia), there is a significant debate between advocates of "whole language" / "balanced literacy" approaches versus "structured literacy" / "phonics" approaches. Recent years have seen a shift toward phonics-based methods, supported by neuroscience research on how the brain decodes written text.[32]

However, this debate may not directly apply to India or many LMICs for several reasons:

1. **Language context:** English is phonetically irregular. Hindi, Gujarati, and other Indian languages have different phonetic structures. Methods optimized for English may not transfer.

7. **Multilingualism:** Many children in India learn literacy in one or more languages. This creates different challenges than monolingual learning.

8. **Diversity of learning contexts:** From private schools in metros to remote rural government schools, the contexts are vastly different.

9. **Different baseline challenges:** The US reading debate assumes universal pre-literacy exposure (books, stories) and universal adult literacy. In India, many children lack early exposure to print. The priorities are different.

While there is strong research on specific programs (e.g., TaRL RCTs, structured pedagogy studies), there is no large-scale, rigorous comparison of different pedagogies implemented under similar conditions in India. As discussed above, UP's comparative data, analyzing NAS 2021 and PARAKH 2024 results, provides rare evidence that different pedagogies produce different outcomes even within the same state, under the same policy environment.

6.3 Gaps in Current Evidence
One of the biggest barriers to progress in FLN is the fragmentation of measurement systems. Consider:

- **Different tools:** The Annual Status of Education Report (ASER) uses a scale (no letters, letters, words, sentences, Grade 1 text, Grade 2 text). The National Achievement Survey (NAS) uses percentages across multiple competencies. PARAKH has shifted to yet another framework. The NIPUN Assessment Test uses a different set of questions. International assessments like TIMSS and PIRLS use their own instruments. This makes it difficult to directly compare the result from different surveys.

- **Stale data:** Much of the data used to justify current programs is 5–10 years old. Annex D shows some of the key studies used do support TaRL and Structured Pedagogy, as a case in

point. The world has changed—post-COVID learning patterns, increased technology use, demographic shifts. Yet old data still drives decision-making.

- **Local vs national:** States and NGOs conduct their own assessments but rarely share data in comparable formats. This makes it impossible for a national body to aggregate learning outcomes and identify what's working, where.

The consequence: it becomes difficult to answer basic questions like "How do the efficacy of ALfA, TaRL and structured pedagogy compare?" or "Which states have made the most progress?" without extensive re-analysis and caveating. This prevents rational funding allocation and honest comparison of approaches.

Moreover, FLN programs often measure only learning gains. They rarely measure:

- Equity: Do all sub-groups (girls, SC/ST, disabled children, rural students) benefit equally, or does the gap widen?

- Attendance: Do children come to school more if engaged and learning?

- Social-emotional learning: Do children develop confidence, agency, collaboration?

- Teacher perception: Are teachers satisfied with the new approach, or do they resist?

- Parent perception: Do parents see value in the changes?

- Sustainability: Do gains persist after external support ends?

Without common measurement across these dimensions, we cannot judge which approaches are truly effective.

6.4 Overlooked Dimensions

Current FLN discourse over-emphasizes narrow reading and math scores. But effective FLN should address:

Equity and Inclusion: Are all children—including girls, SC/ST, disabled children, linguistic minorities—making progress? Or are traditional gaps persisting or widening? Some pedagogies, by design, are more equitable than others. For example, a pedagogy that relies on individual silent work disadvantages children with hearing difficulties; a pedagogy that uses local materials may engage children from poorer communities more; a pedagogy that uses pair work can build inclusive classrooms.

Social-Emotional Learning and Wellbeing: FLN is not just about decoding skills. Children also need to develop confidence, agency, communication, collaboration, and resilience. A pedagogy that builds these alongside reading and math is more holistic. Evidence suggests that SEL-aligned FLN can improve both learning and broader life outcomes.

21st-Century Skills: Children need not just literacy and numeracy but also critical thinking, creativity, communication, and collaboration. The "8C Skills & Traits"—communication, collaboration, creativity, critical thinking, citizenship, character, connectedness and climate-conciousness—are increasingly recognized as essential for both economic productivity and civic participation.[33] A narrow focus on decoding speed misses these dimensions. Pedagogies that build these skills alongside FLN are more aligned with modern workforce needs and life skills.

Attendance and Participation: If children are learning in joyful, engaging classrooms, they come to school more. If they are bored or shamed, they drop out. Measuring attendance changes can reveal whether a pedagogy is genuinely engaging students. Early evidence from ALfA

implementations shows improved attendance (Annex E) when children are learning rapidly and joyfully.

Teacher and Parent Experience: Teachers implementing a new approach may feel empowered or de-professionalized. Parents may see value or resist it. These qualitative dimensions matter hugely for sustainability.

6.5 Comprehensive Common Evaluation Framework: A Proposal

To enable fair comparison, every FLN intervention should be measured on a broad but common set of metrics. Ideally these will involve a difference-in-difference analysis: comparing the baseline to endline progress in schools implementing the given pedagogy with the progress in control schools. Very ideally, a single independent study would measure and compare multiple pedagogies/ approaches, in the same geography and using the same metrics and measurement techniques. This would enable a truly impartial comparison.

Below we suggest some key metrics which should be measured in FLN interventions.

Core Learning Outcomes (Minimum Measurement Set)

1. **Language/Literacy**
   - Decoding/blending fluency (letters/words read per minute at grade appropriate level)
   - Comprehension (understanding of grade-appropriate text)
   - Writing (ability to write simple sentences)

2. **Numeracy**
   - Counting and number recognition (up to relevant grade)
   - Arithmetic operations (addition, subtraction, multiplication, division as appropriate)
   - Problem-solving (word problems involving operations)

3. **Progress Across All Grades (Not Just Grade 3)**
   - Measure Grade 1, 2, 3, and optionally Grade 4–5
   - This reveals whether children are progressing through grades or getting stuck

Equity Outcomes (Critical for Inclusive FLN)

4. **Sub-Group Analysis**
   - Gender (boys vs girls)
   - Caste/ethnicity (SC/ST vs others)
   - Disability status (children with disabilities vs without)
   - Geographic area (rural vs urban)
   - Socioeconomic status (if possible)
   - Research Questions: Are all groups making progress equally? Is the gap widening or narrowing?

5. **Inclusion Indicators**
   - Percentage of children with disabilities in regular classroom (not segregated)

- Classroom environment perception (survey children and teachers on inclusivity)
- Evidence of bullying or stigma based on learning level

Broader Learning and Wellbeing Outcomes

6. **Socio-Emotional Learning (SEL)**
   - Confidence and agency (children's belief in their ability to learn)
   - Communication and collaboration (ability to work with peers)
   - Resilience and growth mindset (response to challenges)
   - Measurement: Teacher observation rubric or student questionnaire

7. **21st-Century Skills**
   - Critical thinking (ability to ask questions, analyze, reason)
   - Creativity (ability to generate new ideas, solve problems)
   - Digital literacy (basic computer/technology use)

8. **School Attendance**
   - Percentage of children attending school on average
   - Change in attendance before and after intervention
   - Dropout rates

9. **Student and Teacher Perception**
   - Student surveys: Do children enjoy learning? Do they feel capable? Are they bullied?
   - Teacher surveys: Do teachers find the pedagogy effective? Do they feel empowered or de-skilled? Is workload reasonable?
   - Parent surveys: Do parents see value in the approach?

Implementation & Sustainability

10. **Implementation Fidelity**
    - Percentage of teachers using the approach as intended
    - Frequency of supervision and feedback
    - Challenges faced and how they were addressed

11. **Cost-Effectiveness**
    - Cost per child (including materials, training, supervision)
    - Cost per unit of learning gain (e.g., cost per SD improvement)
    - Sustainability: Does approach depend on external funding or is it within the normal education budget?

12. **Sustainability**
    - Are gains sustained after external support ends?

- Do children maintain progress into subsequent grades?

- Is the approach integrated into regular schooling or dependent on special project status?

6.6 Independent, Third-Party Assessment

Why self-evaluation is insufficient:

Every organization believes in its own approach. Self-evaluation often reveals only successes and minimizes challenges. To enable fair comparison, assessment must be independent and credible.

A case study from Shamli illustrates this perfectly: initial testing by Academic Resource Persons showed surprisingly high results (Grade 3 averaged 72% on NAS-based questions), yet a surprise test by DEVI staff the next day indicated actual learning levels were much lower (44%). It is vital that assessments are conducted impartially, which may require third-party involvement.

Proposed role of national bodies:

PARAKH (Performance, Assessment, Review and Analysis of Knowledge for Holistic Development) should:

1. Develop the common metric set and measurement implements (as suggested above) in consultation with researchers and implementers.

10. Conduct or fund independent evaluations of major FLN programs – ideally comparing multiple approaches in a single geography using a single set of metrics.

11. Publish annual dashboards showing learning outcomes, equity, and implementation quality by program and geography.

12. Facilitate peer learning among programs: "What is working in District X that we can learn from?"

13. Maintain standards: Only programs meeting minimum evaluation standards should be scaled with government support.

Roles of other entities:

- Universities: Conduct rigorous, independent evaluations

- Research organizations: Provide technical support for data collection and analysis

- NGOs: Implement programs and provide data, but do not solely evaluate themselves

Collecting and transparently sharing high-quality data in a standardized format provides the basis for creating a regular pathway for evaluating and scaling FLN pedagogies, as discussed in the next section.

7. A Standard "RRI Pathway" for FLN Pedagogies

Overview

Many FLN pedagogies make strong claims but lack proof. Some programs are scaled without adequate evidence, while others have evidence but remain restricted to pilots. To accelerate learning while maintaining rigor, we propose a standard Rapid Results Initiative (RRI) Pathway: a clear, staged process for testing and scaling pedagogies. DEVI has been using this RRI pathway to establish evidence and build momentum for scaling ALfA, but the same basic path can equally be applied to any pedagogy.

The RRI pathway balances rigor (evidence before scale) with speed (moving from idea to scale in 2–3 years) and pragmatism (recognizing that perfect evidence is impossible but good evidence is necessary). The RRI progresses through three flexible stages—Explore, Expand, Embed—to ensure rigorous research, scalability and system-wide adoption.[34] Progression is flexible; one can advance to Expand or directly to Embed based on context.

7.1 Phase 1 – Explore: Micro-Pilot (Proof of Concept)

Duration: 4–6 months (e.g., 45–90 days of intensive instruction)

Scale: Small (typically 4 treatment schools + 4 control schools, ~1,000 children)

Cost: Approximately $10,000–20,000 (for assessment, materials, training, and basic supervision)

- Knowledge Partner (DEVI Sansthan): Offering free online training, learning materials, and assessments

- Implementation partner (Government): Arranging appropriate monitoring and third-party assessments

Implementation Process (See Annex F) for a template for 45-day implementation):

- School Selection: Random selection and assignment of treatment and control schools

    - Define a target area and compile a list of eligible schools

    - Exclude outliers like very small or very remote schools, to ensure consistency

    - Randomize selection using tools like Excel

    - Validate the selected schools based on logistical feasibility

- Baseline Assessments: Third-party-validated tests to measure initial skill levels

    - Establish the starting point for student literacy and numeracy skills

    - Provide data for comparative analysis with midline and endline assessments

    - Train third-party data collectors (e.g., volunteers or university students)

    - Use standardized test booklets with multiple-choice questions

    - Familiarize students with test-taking methods to minimize errors

    - Enter data into an app to enable instant reports & analysis

- Teacher Training: Online or in-person, covering ALfA pedagogy and classroom triggers

    - 1–2 days of initial training

    - Highly interactive, focusing on practical demonstrations and hands-on activities

    - Weekly Grow Circles enable teachers to share classroom experiences, challenges, and successes and plan upcoming lessons collaboratively

    - Peer Mentorship: Teachers with strong skills will be paired up with new teachers as buddies

    - WhatsApp groups: Teachers share photos, videos and queries for mutual encouragement and support

- Regular Implementation: Structured daily lessons in foundational literacy and numeracy

- Standard Model: 90 working days, with one hour dedicated to literacy and one hour to numeracy each day.

- Intensive Model: 45 working days with full-day FLN focus using ALfA in mission mode, without other subjects.

- Endline Assessments: Measure progress using post-tests and real-time analytics via Pragati app (or similar).

  - Assess learning at the end of the intervention

  - Control schools continue with "business as usual"

- Research Design: Pre-post difference in difference analysis (RCT design)

- Metrics: Common evaluation framework (Section 8.3), with particular focus on:

  - Learning gains (effect size)

  - Equity (do all sub-groups benefit?)

  - Implementation fidelity (did teachers actually implement as designed?)

  - Cost (what did it cost to implement?)

- Decision Criteria:

  - Success threshold: Effect size ≥ 0.4 SD (significant improvement), with no widening of equity gaps

  - If successful: Proceed to Step 2 (Expand/Block-level)

  - If unsuccessful or mixed: Refine and pilot again, or discontinue

7.2 Phase 2 – Expand: Block or District-Level Implementation

Duration: 12 months (one full school term or year)

Scale: Medium (full block or whole district, typically ~100-1000 schools, ~10,000 - 1 lakh children)

Cost: Approximately $100,000–500,000 (for training, materials, monitoring, and supervision across the block)

- Knowledge partner (DEVI Sansthan): Offering free online training and soft copies of learning materials and assessments

- Implementation partner (government): Arranging bulk printing, and if necessary, venue/travel for physical training

Implementation Process:

Similar process to 'Explore' phase – baseline assessment, teacher training, regular implementation.

- Baseline assessment: Unlike the explore phase, now all schools in a particular geography are included for implementation. However, a small sample (typically 10-15%) are randomly selected for assessment.

- Teacher Training. In large scale implementations, it is usually more feasible to conduct cascade based training. For instance, Tier-1 training: Train ARPs, block coordinators (2-3 days). Tier-2 training: ARPs train teachers in their clusters (1–2 days).

- Regular implementation: Teachers conduct one period per day ALfA literacy classes and one period per day numeracy classes. After students have completed the ALfA books, they continue with their own textbooks, but using the ALfA methods of paired and activity based learning. Meanwhile, ARPs visit schools weekly, provide feedback, and troubleshoot difficulties.

Metrics: Common evaluation framework with focus on:

- Learning gains at block level

- Variation across schools (which schools are doing well, which are struggling?)

- Equity analysis by sub-groups

- Teacher perception (did they find it feasible, effective?)

- Attendance and engagement

Decision Gate:

- Success threshold: Average effect size ≥ 0.3 SD, with no significant equity gaps, and 70%+ of schools implementing with reasonable fidelity

- If successful: Proceed to Step 3 (Embed/District-level)

- If partially successful: Identify which schools/clusters are struggling, provide additional support, extend this phase, or modify the approach

- If unsuccessful: Refine significantly or discontinue

7.3 Phase 3 – Embed: Multi-District or State Level Implementation

Duration: 12–24 months (one to two school years)

Scale: Typically thousands of schools, lakhs of children

Cost: Approximately $500,000–$1,000,000 (for multi-district implementation, including external evaluation):

- DEVI Sansthan: Offering free knowledge partnership, with the implementation partner arranging bulk printing

- The program can become roughly cost-neutral as some pages may be removed from the existing curriculum to avoid duplicacy

Preconditions:

- Evidence of impact and equity from earlier phases

- Buy-in from all levels of government bureaucracy (from teachers and headmasters to ARPs, BEOs and BSA)

- Cost clarity and sustainable funding model

- District-level capacity to support and monitor

- Shift from "project" (temporary, externally supported) to "program" (permanent, government-owned)

Implementation:

- Curriculum Integration: Embed ALfA into national textbooks and teacher guides

- Teacher Development: Develop systemic training programs emphasizing paired learning, hands on maths activities 8C skills as part of learning process.

- Embedded training: Include the pedagogy in initial teacher training (diploma/certificate programs)

- Sustainability Mechanisms: Build local capacity and monitoring systems to ensure self-reliance

- District implementation team: Dedicated FLN coordinator, district ARP nodal officer

- Decentralized monitoring: Each block tracks its progress; district aggregates

- Peer learning: High-performing blocks mentor others

- External evaluation: Independent evaluation of 20–30 schools to verify impact and implementation quality

Metrics: Common evaluation framework with emphasis on:

- District-level learning gains as measured in government assessments

- Equity outcomes at scale

- Cost-effectiveness (cost per SD of learning gain)

- Sustainability: Is implementation dependent on external NGO support, or is it now within government capacity?

- Research Design: Comparison of block- or district-level data with another geography not implementing ALfA

7.4 Conclusion: The Case for RRIs

RRIs offer a practical middle path between untested scale-up and perpetual piloting. By moving through Explore, Expand and Embed, the pathway makes evidence, equity and cost-effectiveness non-negotiable—while still enabling systems to move from concept to scale within 2–3 years. DEVI's application of this approach to ALfA shows how disciplined iteration, tight implementation support and independent measurement can build both credibility and momentum. Crucially, RRIs also clarify decision gates: what counts as success, when to adapt, and when to stop. The next section turns to *who* must carry this pathway—PARAKH, state systems, and NGOs—and how their roles align.

8. FLN Ecosystem: Roles of Different Actors

Foundational learning will not improve through pedagogy and RRIs alone; it improves when the wider ecosystem aligns around evidence, measurement, and execution. That ecosystem has three indispensable actors. PARAKH can create a common national language for FLN—shared benchmarks, comparable metrics, and credible public reporting—so that claims of impact can be tested rather than asserted. States are the engines of delivery: they decide priorities, protect teacher time, build middle-tier capacity, and institutionalise what works through curriculum, training, and monitoring. NGOs and philanthropy add innovation, speed, and implementation support, but must operate within transparent, time-bound pathways that lead to government ownership. This section clarifies how these roles fit together—and why coordination matters as much as design.

8.1 PARAKH: The Role of National Tests

PARAKH was established to replace the National Achievement Survey (NAS) and provide more frequent, decentralized assessment of learning outcomes at the national level. Its 2024 assessment (Rashtriya Sarvekshan - PRS) provides valuable data across all states and districts.

Proposed expanded role:

1. Setting Common Metrics

PARAKH should lead the development of a unified national FLN evaluation framework that becomes the gold standard across all states and programs. This requires:

- Defining clear, grade-level competency benchmarks for reading, writing, and arithmetic
- Developing and validating standardized assessment tools that can be used by all states and NGOs
- Establishing consistent grade-level definitions (e.g., "Grade 2 level reading proficiency")
- Creating equivalency tables that allow conversion between different assessment tools and scales
- Publishing technical guidelines for assessment administration, scoring, and data entry
- Regular updates as best practices evolve and new research emerges

The framework should be developed in consultation with:

- State education departments
- Leading researchers and pedagogical experts
- NGO partners with field experience
- Teachers and headmasters
- International bodies (World Bank, UNICEF, UNESCO)

2. Coordinating Independent Evaluations

PARAKH should establish an independent evaluation cell that:

- Identifies major FLN programs across states and NGO partnerships
- Funds rigorous third-party evaluations of major active FLN programs annually

- Partners with universities and research organizations to conduct evaluations

- Ensures evaluation independence: evaluators have no stake in program success

- Publishes findings transparently, including null and negative results

- Provides technical guidance to states on conducting internal evaluations

This is critical because, as documented in Shamli, self-evaluation by program implementers can be misleading. When ARPs tested children in April 2022, results showed Grade 3 averaged 72% proficiency. But when DEVI staff conducted a surprise test shortly after, actual learning was only 44%. Without independent evaluation, the credibility of program claims suffer.

3. Publishing Public Dashboards

PARAKH should publish annual dashboards showing:

- Learning outcomes by state, district, and block in reading and math (Grade 1-5)

- Equity metrics: gains disaggregated by gender, caste/ethnicity, disability, geography

- Implementation quality: percentage of schools with adequate teacher training, materials, supervision

- Cost-effectiveness: cost per child and cost per unit of learning gain by program and geography

- Program comparison: side-by-side results for different pedagogies implemented in similar contexts

- Sustainability indicators: whether gains persist after external support ends

These dashboards should be:

- Publicly accessible online in simple, visual formats

- Updated annually

- Disaggregated to block and district level (not just state aggregates)

- Multi-language (Hindi, English, and regional languages)

- Accessible to communities, not just bureaucrats

4. Facilitating Peer Learning

Beyond measurement, PARAKH should create platforms for learning:

- Annual "FLN Learning Summits" where high-performing districts share strategies with lower-performing ones

- Structured study tours where state teams visit successful implementations

- Online communities of practice where teachers and educators share classroom experiences

- Rapid publication of case studies: "What is working in District X and why?"

- Identification of emerging leaders and innovations for replication

5. Maintaining Standards

PARAKH should establish minimum standards:

- No FLN program should receive government funding or support without agreeing to the RRI pathway

- Programs must follow the evaluation framework and share data publicly

- Programs that fail to show progress after 2-3 years should be modified, refined, or discontinued

8.2 The Role of States

State governments are the primary drivers of FLN. While PARAKH sets standards at the national level, states implement and adapt. Key roles for states:

1. Adopting the RRI Pathway

- Make it the standard: All new pedagogical innovations—whether developed by government or introduced by NGOs—should follow the RRI pathway

- Establish a gateway: Create a state-level FLN steering committee (with government, NGO, academic, and teacher representatives) to review evidence and approve scale-ups

- Time-bound decisions: At each stage (Explore, Expand, Embed), make clear decisions within 6-12 months. Don't let pilots drag on indefinitely

- Transparency: Publish all pilot results, including failures, so other states learn

2. Ensuring Annual FLN Measurement

- Annual, not triennial: States should assess FLN annually at Grade 3, not every 3 years

- Block and district level: Disaggregate results to block and district level, not just state averages

- Common metrics: Use the PARAKH framework for consistency with national data

- Disaggregation: Break down by gender, caste, disability, geography

- Rapid feedback: Publish results within 1-2 months so teachers and leaders can act on them

This requires:

- Budget for annual assessment (training assessors, printing test booklets, data entry)

- Technology for rapid data entry and analysis (simple app-based systems)

- Norms for privacy (anonymized school data, no individual child names in public reporting)

3. Protecting Teacher Time and Reducing Competing Demands

Teachers are the frontline workers in FLN. Yet in many Indian schools, they are overwhelmed with non-teaching duties:

- Administrative paperwork and reporting

- Supervising mid-day meals

- Conducting elections and other government programs

- Multiple competing training programs from different initiatives

When FLN is added as an additional burden, teachers cannot implement it effectively. States should:

- Hire an executive assistant for each school or pair of schools (depending on size) who can help with routine administrative and data uploading

- Audit and cut: Identify and eliminate non-essential administrative work

- Consolidate programs: If multiple FLN initiatives are running, consolidate them or choose one

- Protect time: Ensure Grade 1-3 timetables explicitly protect 2-3 hours daily for FLN (reading and math)

- Adjust expectations: If FLN takes 12-16 weeks of the year, acknowledge this will require less time on other subjects in those grades

- Streamline curriculum: In Grades 1-3, FLN should be the priority; other subjects should complement it, not compete

One concrete metric: In-field pupil-teacher ratio. Studies from Shamli showed that while official records claimed 30-40 students per teacher, actual in-school observations revealed 50-60 per class because many teachers were absent for non-teaching duties.[35] Reducing this gap (through reducing competing demands) could significantly improve FLN.

4. Supporting Middle-Tier Capacity

The middle tier—block and cluster-level leaders—is critical. These are the people who translate state policy into district action and classroom practice. States should:

- Invest in recruitment: Hire dedicated FLN coordinators at block and district levels (not as add-on responsibilities)

- Strengthen ARPs: Ensure Academic Resource Persons are trained, motivated, and regularly visiting schools (ideal: weekly visits)

- Data systems: Provide block-level dashboards so leaders can see progress in real-time

- Support networks: Create platforms for block leaders to share experiences and learn from each other

- Accountability: Hold block and district leaders accountable for FLN outcomes, not just for implementing activities

This is what UP did well: creating a 4,000+ ARP network and reinforcing accountability through monthly data reviews.

5. Institutionalizing Successful Approaches

Once an approach is proven through the RRI pathway, states should:

- Embed in curriculum: Integrate into official textbooks, lesson guides, and curriculum standards

- Pre-service training: Include in teacher training colleges and university diploma programs

- In-service training: Make it the core focus of annual teacher training (not a special add-on)

- Monitoring: Shift from NGO-led monitoring to government monitoring (capacity building as part of transition)

- Shift from "mission" to "normal": Move from temporary, externally-funded projects to permanent, government-budgeted programs

This is the ultimate test of success: not whether an NGO project works, but whether the government can own and sustain it.

8.3 The Role of NGOs and Philanthropy

NGOs have played a crucial role in FLN innovation. DEVI, LLF, CSF, Pratham, and others have brought new ideas, rapid implementation capacity, and generated. However, NGO roles need to be clearly defined and bounded.

1. Working Within the RRI Framework

- Conduct rigorous pilots: Don't just implement; gather evidence through proper baselines, endlines, and control groups.

- Share data openly: Provide transparent reports on learning outcomes, costs, equity impacts, and implementation challenges.

- Accept independent evaluation: Agree to third-party evaluation without defensiveness.

- Plan for discontinuation: Be willing to discontinue unsuccessful programs. Successful programs should also plan for becoming rolled into the government system rather than continuing indefinitely as separate programs.

- Respect government leadership: NGOs should support government-led reforms, not run parallel systems

2 Independent Evaluations

- Transparent reporting: Publish evaluation reports in full, not just summaries

- Learn from failure: When programs show limited impact, analyze why and adapt rather than hide results

3. Supporting Smaller NGOs

Consolidation in the NGO space is concerning. If only 2-3 large organizations dominate FLN, innovation slows and healthy competition disappears. Philanthropy and government should:

- Fund early-stage organizations: Provide grants to emerging NGOs with innovative ideas

- Mentorship: Pair smaller NGOs with larger ones for guidance and learning

- Market share: Don't reserve all government partnerships for established players

- Diverse geographies: Encourage different organizations to work in different regions, not all in the same "successful" areas

The goal is pedagogical pluralism: multiple strong approaches competing and improving, not monopoly by one or two players.

4. Transparent Reporting

- Annual reports: Publish learning outcomes, costs, equity impacts, and implementation challenges

- Cost transparency: Break down costs by category (materials, training, supervision, administration)

- Comparable metrics: Use common metrics so results can be compared across organizations

- Honest assessment: Publicly acknowledge what's working and what's not

8.4 Mitigating Fears and Misperceptions about NGOs

There are legitimate concerns about NGO involvement in education. Policymakers often worry about misuse of finances, training overload, and lack of government control. However, each of these concerns can be mitigated through judicious transparency measures (Table 6).

Table 6: Government concerns around NGO operations in Education

Category of Concern	Indicative quotes	Mitigation measures
Financial misuse	• "Are NGOs using funds for bloated administration?" • "Are donor funds being diverted?" • "Are they extracting value for themselves, not for children?"	• **Transparent, audited budgets** shared publicly and all funding sources disclosed. Independent financial audits, not just self-reporting, for all projects. • **Benchmarking:** ALfA costs $4 per child; if another program costs $50, there should be clear justification • **Clear breakdown:** How much goes to materials? Training? Supervision? Administration?
Training overload	• "Are teachers being asked to attend endless trainings?" • "Is there 'flavor-of-the-month' syndrome, with new programs replacing old ones every year?" • "Are we creating unsustainable parallel systems that collapse when NGOs leave?"	• **Integration, not addition:** Training should be embedded in existing professional development structures, not additional • **One pedagogy per geographies:** Within a given block or district, avoid implementing multiple incompatible pedagogies simultaneously • **Clear exit strategy:** NGOs should explicitly plan how to make themselves unnecessary, transitioning responsibility to government by Year 3-4 • **Sustainability plan:** By the end of the Embed phase, the government should be able to run the program without external support
Government oversight	• "Are NGOs imposing external models without respecting teacher professionalism?" • "Are teachers and communities left with little voice?" • "Does this reduce government accountability and authority?"	• **Process, not scripts:** Provide a clear learning process (like ALfA's four-step cycle) but with flexibility for teachers to adapt. • **Co-design:** Involve teachers and communities in planning and refining the approach from the start. • **Bidirectional learning:** NGOs learn from teachers and communities, not just the reverse • **Government leadership:** Ensure the state/district government is the primary decision-maker; NGOs are partners, not authorities

		Teacher autonomy within structure: Teachers should be free to experiment with different tactics within an agreed pedagogical framework

9. Policy Recommendations
9.1 Declare FLN an Emergency Priority

Current Status: FLN is a policy priority in most states. NIPUN Bharat exists and has government attention. But it is treated as a routine quality improvement initiative—important, but not an emergency.

What's Needed: Instead, FLN should be declared an emergency, with the urgency and resources of an actual crisis. Specific actions include :

1. Align Government Resources

- Budget: Allocate adequate funds specifically for FLN (not as a sub-component of "overall quality")

- Personnel: Hire dedicated FLN coordinators at state and district levels

- Curriculum: Redesign Grade 1–3 curriculum around FLN (not as an add-on)

- Materials: Ensure textbooks, workbooks, and teaching-learning materials are aligned to FLN goals

In UP, this alignment meant that all state initiatives—from NIPUN guidelines to teacher training to assessment—converged on FLN.

2. Realign System Efforts

- FLN first: In Grades 1–3, FLN is the top priority; other objectives (physical education, arts, formal exam preparation) are secondary

- No formal exams: Children should not face formal exams in Grade 1–2; assessment should be for learning, not for ranking

- Teacher evaluations: FLN outcomes should be a key metric in teacher performance evaluations (not the only metric, but a significant one)

- School accountability: Schools should be assessed primarily on FLN outcomes in Grades 1–3

3. Protect Teacher Time

- Reduce non-teaching: Audit and eliminate non-essential administrative work, supervisions of non-core programs

- Protect instructional time: Ensure FLN instruction gets protected time in the timetable (e.g., first 2 hours of every school day)

- Single pedagogy per region: Don't ask teachers to implement multiple incompatible pedagogies simultaneously

- Realistic timelines: Allow 3-4 years for a new pedagogy to be adopted; don't demand instant implementation

9.2 Adopt a National FLN Evaluation Framework

Current status: Different states use different assessment tools (ASER, NAS, state-specific tests). NGO programs use their own metrics. Comparison is nearly impossible.

What's Needed: A single, national evaluation framework adopted by all FLN programs and state initiatives. Specific actions include:

1. PARAKH to Develop and Publish the Framework

By early 2026, PARAKH should publish a common framework including:

- Learning competencies: Clear definitions of Grade 1, 2, 3 proficiency in reading, writing, math

- Assessment tools: Standardized literacy and numeracy tests that all states can use

- Equity metrics: Protocols for measuring outcomes by gender, caste, disability, geography

- SEL and 21st-century skills: Rubrics for assessing collaboration, critical thinking, agency

- Cost tracking: Template for recording intervention costs at each level

- Data format: Standards for how states should report data (disaggregation, time-series, etc.)

This should be developed with input from:

- State education departments

- NIPUN implementation teams

- Leading NGOs (LLF, CSF, Pratham, DEVI)

- Universities and research centers

- Teachers and headmasters

- International experts (World Bank, UNICEF, UNESCO)

2. States to Adopt the Framework

All states should commit to:

- Using the common PARAKH tools for annual Grade 3 assessments

- Reporting results to PARAKH in standardized format

- Disaggregating by sub-groups and geographies

- Making results publicly available within 2-3 months

This does not mean abandoning state-specific assessments; states can continue those for accountability and planning. But for FLN, the national framework should be universal.

3. Annual Assessment and Reporting

- Frequency: Annual (not every 3 years)

- Timing: Typically March-April, capturing full-year learning

- Geographic disaggregation: At minimum block level

- Demographic disaggregation: By gender, caste/ethnicity, disability, rural/urban

- Public reporting: Results published within 2-3 months in accessible format (dashboards, infographics)

- Timeline for first framework assessment: March 2026 (giving 6 months for PARAKH to finalize framework)

4. Independent Evaluation

- Government assessments are important but can be subject to pressure or errors

- Complement with independent, third-party evaluation of 10–20% of schools annually

- PARAKH should fund these evaluations through partnerships with universities and research organizations

- Results should be published in peer-reviewed journals and public reports

9.3 Mandate an RRI Pathway for All Pedagogical Innovations

Current status: Some programs are piloted rigorously; others are scaled without adequate evidence. There is no standard process.

Needed: All pedagogical innovations (whether from government or NGOs) should follow the RRI pathway. Specific actions include:

1. Define the RRI Pathway at National Level

PARAKH or a dedicated FLN steering committee should formalize the RRI pathway (as described in Section 9) including:

- Timelines: Explore (4-6 months), Expand (6-12 months), Embed (12-24 months)

- Scale-up gates: Decision points with clear success criteria

- Evidence thresholds: Effect size ≥ 0.2 SD for Explore, ≥ 0.15 for Expand, ≥ 0.10 for Embed

- Equity requirements: No widening of gaps for marginalized groups

- Cost transparency: All costs tracked and reported

This should become the standard requirement for all new approaches, codified in:

- NEP 2020 implementation guidelines

- NIPUN Bharat operational manual

- State education department handbooks

- NGO partnership agreements

2. Establish a Gateway Mechanism

- Create a state-level FLN Steering Committee to review evidence and approve scale-ups

- Committee membership: State officials (DGSE, Principal Secretary, state NIPUN coordinator), district representatives, leading NGOs, university researchers, teacher representatives

- No scale-beyond-district without evidence: Programs should not expand to the state level or be embedded in curriculum without passing the district-level gate

- Public reporting: Gate decisions should be published, including rationale (why approved or why not)

- Appeal process: Organizations should have the right to revise and resubmit if a program doesn't pass a gate

3. Mandate Data Sharing

- All programs receiving government support must share data in real-time

- Data should be open-access (published in anonymized, privacy-protected formats)

- Sharing should not be delayed until a program "looks good"; even early/mixed results are valuable for learning

- Data should be in standardized formats (common metrics) to enable comparison

9.4 Promote Pedagogical Pluralism, Not Monopoly

Current concern: In many states, one approach dominates, limiting space for alternatives and innovation.

Needed: An open ecosystem where multiple strong pedagogies can compete and improve. Specific actions include:

1. Discourage Monopoly

- A state should not lock in one pedagogy for all Grades 1–3 until it has been rigorously tested.

- Instead, allow different districts to try different approaches (within the RRI framework)

- Example: District A tries ALfA, District B tries a "Science of Reading" approach, District C tries LLF's structured method

- After 2–3 years of data, the state can make informed decisions about what works where

This creates healthy competition and continuous improvement. If only one approach exists, there's no motivation to innovate or improve it.

2. Support Emerging NGOs

- Philanthropy should explicitly fund early-stage organizations with innovative ideas

- Government should welcome new partners, not reserve space only for established organizations

- Emerging NGOs should receive mentorship and technical support from more established ones

3. Diverse Funding Sources

- Avoid scenarios where all FLN funding comes through one channel

- Multiple funders, with different priorities, enable healthier competition and innovation

- Government should primarily provide funding for scaling up and embedding (stages 2 & 3); donors can fund innovation and exploration (stage 1)

4. Transparent Comparisons

- Annual reports comparing learning outcomes, equity, cost, and implementation quality across approaches

- Honest discussion: "Why did Approach X work better in some districts but not others?"

- Attribution analysis: What factors (pedagogy, training, supervision, materials) drove success?

- Sharing of lessons learned, including failures

9.5 Integrate FLN with Broader Quality Agenda

Current concern: FLN is sometimes siloed as a narrow "reading and arithmetic" agenda, separate from broader quality improvements.

Needed: FLN as a vehicle for equity, inclusion, social-emotional learning, and 21st-century skills. Specific actions include :

1. Measure Breadth, Not Just Depth

Don't reduce FLN success to "reading speed" or "math facts." Measure:

- Comprehension: Can children understand what they read?

- Problem-solving: Can they apply math to real situations?

- Agency: Do they believe they can learn?

- Collaboration: Can they work effectively with peers?

- Inclusion: Are all children, including those with disabilities, learning?

A program that improves reading fluency but increases bullying of "slow readers" has not truly succeeded.

2. Use FLN as an Equity Lever

- Deliberately design pedagogies (like ALfA's mixed-ability pairs) to reduce inequality

- Measure equity outcomes: Are caste gaps narrowing? Gender gaps?

- Disaggregate results: Don't celebrate overall gains if specific sub-groups are left behind

- Monitor for unintended harm: Could a program inadvertently widen gaps for some groups?

3. Integrate SEL into FLN

- Social-emotional learning should not be a separate program but intrinsic to FLN

- Pedagogies that build collaboration, communication, and agency alongside FLN are more aligned with modern needs

- Teachers should be trained to recognize and nurture SEL alongside literacy/numeracy

- Assessments should include SEL dimensions

4. Embed 21st-Century Skills

- As children learn to read and do math, they should also learn to think critically, collaborate, create, and adapt

- Assessment should include these dimensions

- The goal is not just decoding speed but deep comprehension, problem-solving, and creative application

- Pedagogies like ALfA that build the 8C skills should be explicitly recognized and valued

10. Conclusion

10.1 The Literacy Emergency

This white paper began with a stark fact: 70% of 10-year-olds in low-and-middle-income countries cannot read a simple text with understanding. In India, only 27% of Grade 3 students are at grade level in reading, and 34% in arithmetic. This is not a routine quality issue. It is an emergency.

An emergency demands emergency-mode responses. Yet the current approach—committees, 5-year plans, scattered pilots—is the pace of routine business. Meanwhile, a generation of children passes through Grades 1–3 without building foundation skills. The opportunity to help them is lost. Some will catch up later; many will not. Inequality will widen. Economic potential will be foregone.

The COVID-19 pandemic worsened the crisis dramatically. According to Azim Premji University, 92% of primary school students lost at least one literacy skill, and 82% lost at least one numeracy skill during school closures.3 Recovery will take years if we continue at the current pace. Without bold action, an entire generation will be lost.

The cost of inaction is staggering. The World Bank estimates that if all primary-age children achieved literacy, 171 million people would escape poverty. Beyond poverty reduction, literacy is foundational to health outcomes, gender equality, civic participation, and personal agency. A child without literacy is a child without options.

10.2 The Opportunity

Yet there is profound hope in the UP and ALfA story. When there is political will, pedagogical innovation, and system support, rapid change is possible.

UP's experience shows that even a historically underperforming state can achieve remarkable gains. Between 2021 and 2024, UP gained 10 percentage points in Grade 3 reading and math, while the national average gained only 2–3 percentage points.[36] This was not luck. It resulted from:

1. **Clear political commitment:** The Chief Minister personally championed FLN; successive Directors General of School Education maintained momentum

2. **Middle-tier strengthening:** 4,000+ Academic Resource Persons visiting schools, coaching teachers, tracking progress

3. **System alignment:** Curriculum, training, materials, monitoring all converged on FLN goals

4. **Pedagogical innovation:** Different approaches (ALfA, LLF, CSF) competed and improved; the best gained traction

ALfA's effect sizes of 0.4–0.6 SD show that it is possible to dramatically speed up learning for all children, not just the privileged few. ALfA enables children to achieve foundational literacy and numeracy in just 45 days, contrasting with traditional methods that take 3 years or more.5 This rapid progress allows policymakers to swiftly scale new pedagogical approaches.

Other pedagogies may prove equally or more effective. The point is not that ALfA is "the solution," but that change is achievable, and the path forward is clear.

10.3 A Call for Courage

This white paper proposes specific, actionable recommendations:

1. Declare FLN as an emergency.

- Reorient government efforts, budgets, and timelines around a time-bound FLN goal
- Realign teacher time, curriculum, and accountability around FLN in Grades 1–3
- Communicate widely: Every parent, teacher, leader should know FLN is the #1 priority

2. Adopt a common evaluation framework.

- Enable fair comparison of approaches and rational allocation of resources
- Annual Grade 3 assessments at block/district level using common metrics
- Independent, third-party evaluations to verify results
- Public dashboards showing learning outcomes, equity, costs, and implementation quality

3. Implement the RRI pathway.

- Pilot rigorously (Explore: 4+4 schools, 45–90 days)
- Scale carefully (Expand: full block; Embed: full district)
- Embed permanently (Curriculum integration and government ownership)
- No large-scale adoption without proof; no perpetual pilots

4. Strengthen the middle tier.

- Invest in block and district leadership, supervision systems, and data infrastructure
- Academic Resource Persons visiting schools weekly, providing coaching and feedback
- Block-level data dashboards enabling rapid response
- Peer learning networks where successful blocks mentor others

5. Promote pedagogical pluralism.

- Let multiple approaches compete within the RRI framework
- Support emerging NGOs with evidence and mentorship, not gatekeeping by a few large players
- Diverse funding sources and organizations drive innovation

6. Integrate FLN with equity and broader quality.

- Use FLN as a lever for reducing inequality, building inclusion, developing whole-child capabilities
- Measure learning breadth (language, math, SEL, agency) not just depth (decoding speed)
- Ensure 21st-century skills are embedded in FLN pedagogy, not added as afterthoughts

These are not revolutionary ideas. They are pragmatic, grounded in evidence, and feasible with political will. But they do require a shift in mindset: from "FLN is one of many education priorities" to "FLN is the emergency we must collectively address."

10.4 From Vision to Reality: The Path Forward

For the next 12-18 months:

- PARAKH should finalize the common FLN evaluation framework (by June 2026)

- States should commit to the RRI pathway and annual Grade 3 assessments (by August 2026)

- First cohort of district-level implementations should move from Explore to Expand phase (by December 2026)

- Independent evaluations should be underway in 5-10 districts (by March 2026)

- National FLN Steering Committee should be established to coordinate and oversee (by April 2026)

For 2027 onwards:

- NIPUN Bharat Goals: If this pathway is followed, India can credibly work toward universal FLN by 2026–27

- Global Scaling: Successful approaches from India can inform FLN efforts globally

- Generational Impact: A generation of children who enter secondary school with strong foundational skills can break cycles of poverty and inequality

10.5 Why This Matters: The Human Dimension

Behind these data and recommendations are 80 million children in India—and 700 million globally—who are struggling to learn. Each one is a person with dreams, potential, and agency.

A child who learns to read by Grade 3 enters Grade 4 with confidence and opens worlds of knowledge and possibility. They can pursue education further, engage in society, and advocate for themselves.

A child who doesn't learn to read by Grade 3 enters Grade 4 already defeated. They learn to see themselves as "not a learner," drop out, and are channeled into informal work or early marriage. The doors to better futures close.

Teachers want their students to succeed. But many feel powerless—asked to teach crowded classes, lacking materials, without proper training, under constant pressure. A pedagogy that works, that is joyful, that produces visible results, gives teachers their agency back.

Communities want their children to learn. But when they see generation after generation leaving school without basic literacy, hope fades. Visible, rapid progress—like children learning to read in 45 days—reignites belief that change is possible.

This is the human dimension behind this white paper. It is a call to recognize that the current system is failing our children, and to have the courage to transform it.

Final Word

As Albert Einstein observed: "Insanity is doing the same thing over and over and expecting a different outcome."

For decades, India and the world have relied on incremental improvements to education systems designed for a different era. We have added programs, refined curricula, trained teachers—and still, 70% of 10-year-olds cannot read. It is time to stop this insanity.

The evidence is clear: Pedagogy matters. System support enables pedagogy. Fair evaluation enables learning. UP's success, ALfA's results, and the international evidence all point the way.

The path is also clear: Common metrics, RRI pathways, pedagogical pluralism, middle-tier strengthening, and integration with equity. This is not theoretical; these approaches are already working in UP, Ghana, Maldives, and other contexts.

What is missing is collective will. The will to declare FLN an emergency. The will to measure fairly and learn honestly. The will to shift from slogans to action, from pilots to scale, from incremental to transformative change.

This white paper is a call for that will. It is a call for policymakers, educators, researchers, funders, and communities to unite around a shared goal: Every child, in every corner of India and the world, learning to read, write, and think by age 8—the foundation for all else.

If we act now, with the strategies and frameworks outlined here, that vision can become reality within a generation. The cost of delay is immeasurable. The cost of action is manageable. The time is now.

Central Square Foundation (CSF)

Geographies in UP (FLN focus)
- Six districts: Agra, Aligarh, Ghaziabad, Jhansi, Gorakhpur, Sitapur

Type of intervention
- Primarily a systems-strengthening partner for NIPUN Bharat. CSF makes the government's own FLN programme run better, but does not fundamentally change pedagogy in individual classrooms.
- Core teaching–learning materials remain those provided by the state; CSF helps ensure they are better implemented and monitored.
- Typical support includes:
    - o Strengthening District and Block PMUs and monitoring structures.
    - o Developing and supporting monitoring tools, review formats and data dashboards.
    - o Training and hand-holding resource cadres to track and improve NIPUN implementation.

Support to teachers and classrooms
- Indirect: CSF focuses on data, review and planning. Classroom support reaches teachers through strengthened government cadres and NIPUN materials, not via a separate CSF-branded FLN toolkit.

Assessment & data use
- Emphasis on better use of existing data (NAS, PRS, NIPUN tools) and on building habitual data-driven reviews at district/block level.

Language & Learning Foundation (LLF)

Geographies in UP (FLN focus)
- Five districts: Bhadohi, Chandauli, Fatehpur, Shravasti, Varanasi

Type of intervention
- A specialist in early Language and FLN pedagogy, especially Hindi reading and writing.
- Key elements typically include:
    - o Development of grade-appropriate FLN materials (workbooks, teacher guides, storybooks, training manuals) for Balvatika to Grade 3.
    - o Intensive training and mentoring of government resource cadres (SRG, ARP, etc.) to model lessons, observe teachers and give feedback.
    - o Classroom practice support is mediated through these cadres, while NIPUN remains the overarching state programme.

Support to teachers and classrooms
- Strong, especially for Language:
    - o Structured Hindi FLN pedagogy.
    - o Demonstration classes, co-planning and feedback via government cadres.

- Mathematics is also supported but is generally less central than Language in LLF's core brand identity.

Assessment & data use
- Uses state assessment data and its own tools to track gains in reading and comprehension; supports districts in interpreting FLN data and adjusting training.

Dignity Education Vision International (DEVI Sansthan)

Geographies in UP (FLN focus)
- Four districts: Shamli, Barabanki, Lucknow, Unnao

Type of Intervention
DEVI is unique among the three NGOs because it offers a full, daily-use classroom model, *and* simultaneously builds capacity within existing government structures.

1. **Classroom Model (ALfA pedagogy)**
   o Thin ALfA Pair Booklets in Hindi and Mathematics for Grades 1–5, designed for:
     ▪ Random pair-work (children teach and ask questions to each other).
     ▪ Perfection loops – quick tests, feedback, and re-teaching to the difficulties.
     ▪ Short, visual modules children can do largely on their own.
   o Simple TLMs (number chips, place-value tools, etc.) make mathematics and literacy concrete.
   o Page-by-page teacher prompts (in-class + home-stretch) embedded at the bottom of each page, turn every lesson into an on-the-job training episode.
2. **Capacity Building & Ongoing Support**
   o DEVI does not create a parallel delivery structure; it intentionally works through and strengthens government systems:
     ▪ Training and coaching BSAs, SRGs, ARPs, block-level leaders to own and drive ALfA.
     ▪ Using existing review meetings, academic visits, and NIPUN forums as some of the platforms for reflection and problem-solving.
   o Strong emphasis on short, focused trainings (1–2 days) and frequent online refreshers instead of long, one-off workshops.
   o GROW Circles: weekly or regular teacher meetings to:
     ▪ Share "what went well" and challenges.
     ▪ Plan upcoming modules and activities using the prompts in the books.
     ▪ Track progress using class trackers and reflection registers.
   o Leaders and cadres are trained to observe classes with ALfA checklists, support teachers, and use data from both government and DEVI assessments.
3. **Assessment, Data and Pragati**
   o Larger diagnostic tests are scanned instantly via Pragati app, generating three-colour reports for students, teachers and district leaders.
   o DEVI actively uses and encourages use of government's own data (PRS, NIPUN tools, attendance, etc.) and overlays its analysis, so that data-driven support can continue even after DEVI exits.

Annex B: International Case Studies

Ghana Case Study (Olinga Foundation)[37]

Context: Rural schools in Ghana with high student dropout and low learning
Implementation: 45-day ALfA pilot in 6 treatment schools + 2 control schools (Grade 4-5)
Results:

- Reading: Proportion of students at highest proficiency level nearly doubled from 22% to 41%

- Effect size: 0.47 SD

- Implementation time: 6 months

Maldives Case Study (Ministry of Education with UNICEF)

Context: Island nation with diverse geographies; some schools very isolated
Implementation: 45-day ALfA in 13 treatment schools + 5 control schools
Results:

- Double learning gains in treatment vs control schools

- Sustained gains to 6-month follow-up

- High teacher satisfaction; schools requesting continuation

- Successful adaptation of materials to local context

Peru Case Study (ArcaBeta NGO)

Context: Rural, low-resource schools; mix of Spanish and indigenous languages
Implementation: 45-day ALfA in 2 schools
Results:

- Baseline: Only 32% of children proficient in reading, writing & arithmetic

- Endline: 80% proficient after 45 days

- Speed and scale of gains remarkable even in multilingual context

Annex C: Number of children impacted by ALfA and program costs over past 3 financial/academic years

This section shows the DEVI budgeted and estimated non-budgetary expenditure over last 3 financial/academic years[5], and compares this with the number of children reached to derive a figure for cost per child. Chart 1 shows annual expenditure (in USD equivalent, based on current exchange rate) based on audited financial reports.
With strong year on year growth ALfA has expanded from 20 schools in 2022 to now be reaching over 10,000 government schools covering 785,000 students (Chart 2, click here for lists of schools in different geographies). Besides these 10,000 schools, DEVI has commitments from several state governments (Himachal Pradesh and Jammu) for a total of a further 25,000 schools, and another 10,000 schools imminent for 2026-27. The number of students shown in Chart 2 is based on past/current implementations and current MOUs for future implementation, a number likely to grow further.

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[5] The Indian financial year goes from 1 April to March 31st. The academic year also aligns closely with this.
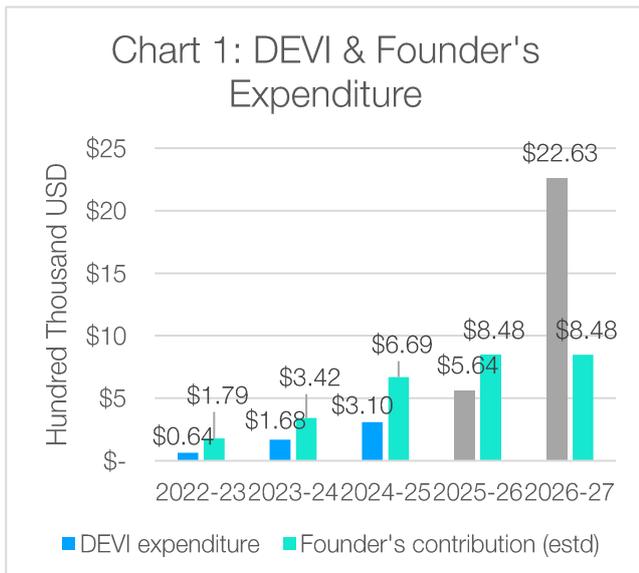
Figure 8: DEVI expenditure over past 3 FY.
DEVI expenditure is based on audited financial statements,
Founder's expenditure is based on estimates. Figures for 2025-26
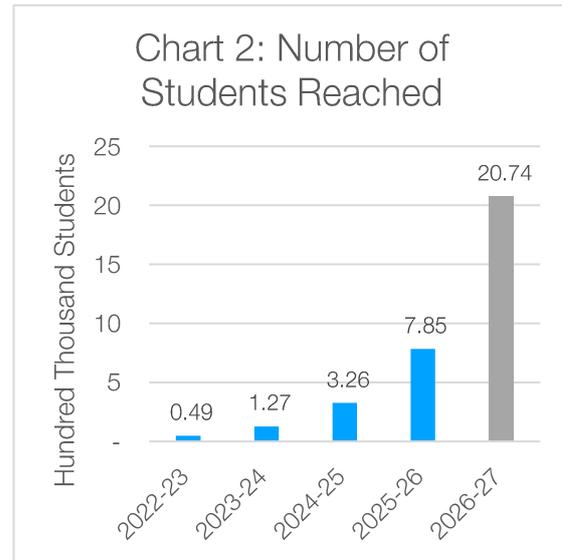and 2026-27 are projections.

Figure 9: Number of students reached by ALfA.
Figures from 2022-23 to 2025-26 are based on actuals;
2026-27 is based on current commitments and may grow.

The average per child cost has varied from initially $5 per child, to reduce to around $2.50 with some economies of scale and by reliance on government support as we did not have the funds to provide adequate supervision and implementation support ourselves. This is not ideal, we would rather provide proper support, assessments & reports panel, videos and tech support, and covering of institutional expenses. All this would lead to an estimated cost of $4 per child at scale.

A significant proportion of the overall expenditure on ALfA has been incurred by the founder, outside the DEVI budget, as shown in Chart 1. This includes printing study materials, replicating in different languages, math toolkits, teacher training, staff salaries, travel, accommodation, etc. In addition, there have been in-kind contributions of training venues, food, etc.

Annex D: Exporation of TaRL and Structured Pedagogy

Teaching at the Right Level (TaRL)

One of the 'great buys' recommended by the World Bank's Global Education Evidence Advisory Panel (GEEAP) is to target teaching by students' learning levels.[38] This typically involves a short assessment to measure students' current learning, grouping students according to their level, and targeting instruction accordingly. The most widely studied of such programs is Teaching at the Right Level (TaRL), developed by a leading education NGO, Pratham.

TaRL has been used across many contexts (e.g. from inside school hours to special intensive summer programs) and with varying implementational strategies (e.g. government teachers implementing the program vs community volunteers). Different studies have shown a variety of impacts, with effect sizes[6] ranging from a modest 0.08 to a highly impressive 0.7, with a weighted average of 0.15.[39] For context, a recent World Bank policy paper estimated that a typical year of schooling in a low- and middle-income country produces 0.15-0.21 standard deviations worth of

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[6] Effect size = (learning gain in treatment – learning gain in control)/ standard deviation

learning gains.[40] This means that TaRL programs produced learning gains equivalent to around 1 year of business-as-usual schooling. Table 1 shows some key TaRL studies.

Table 7: Effect sizes of Teaching at the Right Level programs across time and place[41]

Geography, Year	Implementation approach	Duration	Results (SD improvement)
Bihar, 2008-10	Community volunteers teaching outside school hours	60 days	0.11
Bihar, 2008-10	Govt teachers running one month summer camp	20 days	0.08
Haryana, 2012-13	Govt teachers during school year	200 days * 1 hour/day	Reading: 0.15, Writing: 0.14
Uttar Pradesh, 2013-14	Series of 10- or 20- day camps conducted by volunteers	50 days	Hindi: 0.61-0.71, Maths: 0.61-0.69
Ghana, 2011-13	Community volunteers teaching 2 hours per day	200 days	0.09
Kenya, 2005-07	Govt teachers during school year	200 days	0.14
Average SD improvement given in Copenhagen Consensus. 2023: Half-Time to SDGs Best Investment Paper: Education)			**0.15**

Most studies on TaRL referenced in the World Bank and Copenhagen Consensus reports were conducted a decade ago or more. The 2013-14 study which found the largest effect size used an approach – school camps being run by volunteers – which is now no longer in use. More recent studies have found limited effect: a 2022 study in Assam, India found no effect from in-school learning camps unless combined with an out-of-school study program.[42] Another study in Pakistan found effect sizes of 0.13-0.18 in Mathematics, 0.18-0.25 in English, and no effect for Urdu/Sindhi.[43]

TaRL has been implemented at scale in India and Africa (over 60 million students impacted, as of 2022).[44] However, test scores and surveys are yet to show a commensurate macro-level improvement in learning outcomes. Pratham has been partnering with state governments to implement TaRL in Andhra Pradesh, Uttar Pradesh, Punjab, Himachal Pradesh, Bihar, Madhya Pradesh, Karnataka and Jammu & Kashmir.[45] Comparing the ASER test scores from 2016 to 2024, these states' average proportion of Grade 5 students able to read a Grade 2 text increased modestly from 42% to 45% - virtually the same as the national average (Figure 5).[46] According to the NAS, reading and mathematics scores for Grade 3 and 5 have declined modestly between 2017 and 2024 (Figure 6), though slightly better than the national picture.

As well as the lack of macrodata evidence for TaRL's impact, there are also some concerns that segregating students by learning level has a negative social impact. In a country that has never adequately dealt with caste, segregating students by ability – even for the best of motives – is fraught with danger. Students in the 'lower ability' group have reported being shunned and mocked by those in the 'higher ability' group.[47] Teachers have also been known to expect 'lower ability' group children to perform more school maintenance and cleaning tasks.

Ability-grouping can reshape children's identities and peer dynamics. In several contexts, students and even teachers began referring to children by group labels rather than names, entrenching perceptions of 'weak' and 'strong'. Early instances of legal and parental pushback (e.g., against physical segregation by 'ability') underscore the need for independent research on social and psychological harms. Grouping on unstable, narrow measures of ability also risks misclassification and stigma; equity may be better served through collaborative designs that avoid labels.
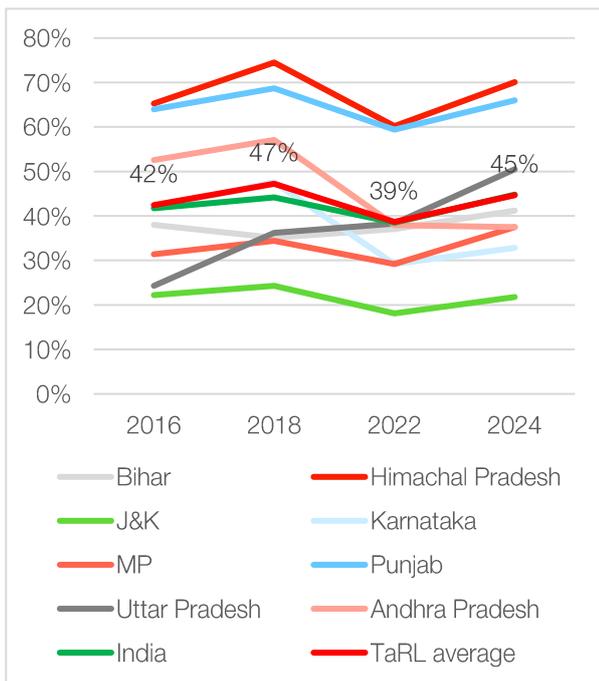
Figure 10: Proportion of Government Grade 5 Students in TaRL states able to read Grade 2 text (ASER 2024)
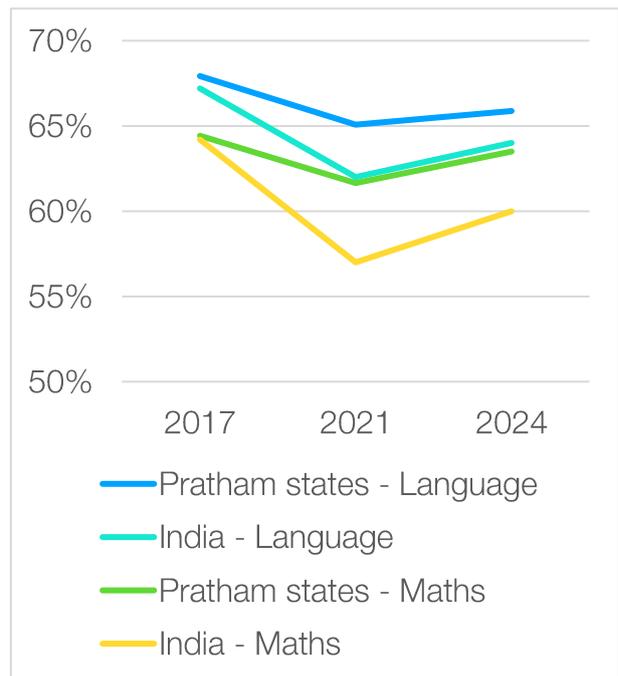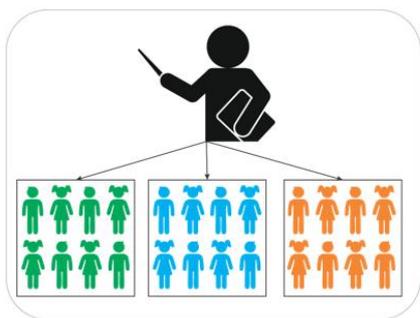

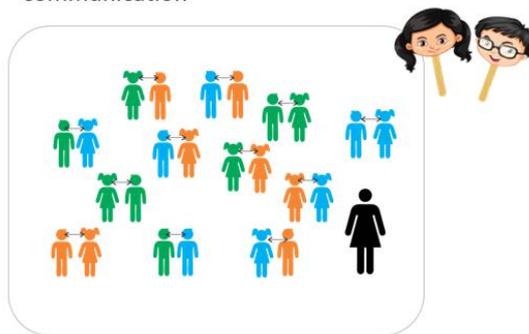*Figure 11: NAS (2017) to Parakh (2024) results, Grade 3, ASER states vs national average.*

Figure 12: TaRL and ALfA pedagogical approaches

Structured Pedagogy

Structured pedagogy, defined as *"a coherent package of investments that include lesson plans, learning materials, skills-based ongoing teacher training, and teacher mentoring that are carefully coordinated to reinforce each other"*, is another of the 'Great Buys' listed in the World Bank GEEAP Report. In some cases, this includes giving teachers detailed scripts in the form of daily lesson plans; while in other instances the structure may be less specific, but include guidelines of what to teach, in which order, and by when.

The theory behind structured pedagogy is simple: many teachers struggle to come up with effective lesson plans and classroom strategies on their own. Hence, providing them with a pre-packaged set of materials & lesson plans enables them to focus on classroom management and delivery. Despite its success, structured pedagogy has met some resistance from teachers who feel it de-professionalises their work, turning them into mere deliverers of content.[48] A further criticism is that rigid daily lesson plans can mean that teachers leave some students behind as they 'cover' the syllabus.[49]

Table 8: Effect sizes of Structured Pedagogy programs across time and place

Authors	Geography, Year	Sample size	Duration	Effect size
He, Linden & MacLeod	India (Mumbai), **2009**	3 RCTs; several hundred children per arm across settings	~1 term to 1 school year (varies by arm)	+0.12 to +0.70 SD across implementations.
Jukes et al. (HALI Literacy)	Kenya (Coast), **2010–2012**	101 public schools; Grade-1 cohort	2 school years	Up to **+0.64 SD** on literacy; dropout fell 5.3% → 2.1%.
Abeberese, Kumler & Linden	Philippines, **2011** (published 2014)	100 schools; ≈4,000 Grade-4 pupils	31 days (+ 3-month follow-up)	+0.13 SD at endline; ~+0.06 SD at 3-month follow-up.
Pallante & Kim	Chile, **2013**	Kindergarten: 312; Grade-1: 305	1 academic year	d = 0.18 to 0.70 across outcomes (e.g., 0.70 for letter-naming).
Lucas, McEwan, Ngware & Oketch	Kenya & Uganda, **2014**	Kenya: 28 clusters (112 schools); Uganda: 10 clusters (109 schools)	~1 school year	Uganda: +0.20 SD (oral), +0.18 SD (written); Kenya: +0.08 SD (oral), ~0 (written).
Average SD improvement given in Copenhagen Consensus. 2023: Half-Time to SDGs Best Investment Paper: Education)				**0.13**

Annex E: Student Attendance in ALfA-implementing Geographies

In Nandurbar, Maharashtra, ALfA was implemented in 4 schools with 4 as control. The endline tests were conducted in September-October 2025. The dates were not announced to the children, meaning that the number of students sitting the test served as a de facto spot check for attendance. The results are shown in Figure 10: 50% attendance in control schools compared to just 80% in treatment schools.
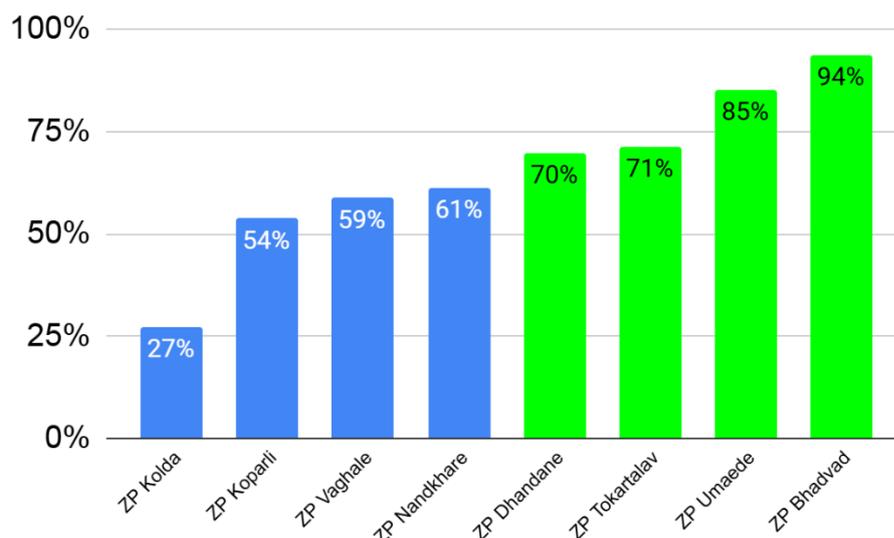

Figure 13: Student attendance on the day of testing, Nandurbar, Maharashtra. Blue = control schools, Green = treatment schools

A separate piece of evidence from a different geography also suggests that ALfA implementation may improve attendance. Mid-day meal data from Hilauli, Unnao showed that attendance rose from an average of 70% before ALfA implementation to 80% during.[50]

A survey of 1,500 teachers, primarily from Himachal Pradesh, in November 2025 also found that 85% of teachers felt that ALfA had made a 'good' or 'great' impact on student attendance.[51]

Annex F: Template for 45-Day 'Explore' Phase Pilot Design

Phase 1: Planning (Weeks -2 to 0)

- Identify and randomize 8 schools (4 treatment, 4 control)
- Select independent assessor (university partner, not program staff)
- Develop baseline testing schedule
- Prepare teacher training materials
- Set up data entry system

Phase 2: Baseline (Week 1)

- Administer baseline assessments in all 8 schools
- Assess all Grade 1-3 students
- Record demographics, prior schooling, home language
- Data entry and initial analysis

Phase 3: Training (Week 2)

- Treatment schools only: 2–3 day teacher training
- Hands-on practice with materials
- Classroom setup and preparation
- Establish support groups (WhatsApp, Grow Circles)

Phase 4: Implementation (Weeks 3-10)

- Treatment schools: 45 days of structured FLN instruction
- 1 hour literacy + 1 hour numeracy daily
- Weekly supervision visits
- Regular WhatsApp support and troubleshooting
- Midline assessment (Week 4-5) to track progress and adjust

Phase 5: Endline Assessment (Week 11)

- Assess all students again in treatment and control schools
- Same assessor, same tools, same process
- Data entry and analysis

Phase 6: Analysis and Reporting (Week 12)

- Calculate effect sizes (treatment gain - control gain)

- Equity analysis (disaggregate by demographic groups)
- Implementation fidelity review
- Cost accounting
- Write report with findings and recommendations

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