



ALfA Numeracy

Swift

results in just 45 days

Scalable

low-cost, aligned with
national curricular framework

Structured

from concrete to abstract

ALfA ACCELERATING
LEARNING
FOR ALL



DIGNITY
EDUCATION
VISION INTERNATIONAL

EXECUTIVE SUMMARY

Accelerating Learning for All (ALfA) is a swift, scalable and well-structured foundational literacy & numeracy program. Using a unique activity-based pedagogy leveraging kinaesthetics and concrete objects, most children surpass the FLN goals for their grade within 45 days.

ALfA program mainstreams learning in pairs. This builds collaboration, communication, critical thinking, and respect for diversity, and improves equity and inclusion.

By establishing evidence through research implementations in collaboration with governments and NGOs, ALfA has grown exponentially since its 2022 launch.

This report outlines ALfA's impact in improving numeracy outcomes. It provides an overview of pedagogy, curriculum and assessments, as well as sharing data and a few case studies of implementation in India and abroad.

We deeply appreciate your engagement with ALfA, and look forward to working together towards FLN for all.

Dr. Sunita Gandhi

CEO, Dignity Education Vision International (DEVI), India/USA

Former Economist, The World Bank, USA

Ph.D., Physics, Cambridge University, UK

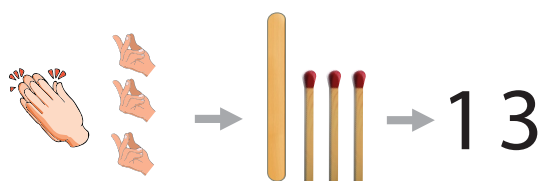
Chief Advisor, City Montessori School, Lucknow

(World's Largest School as per Guinness Records)

ALfA PEDAGOGY

1

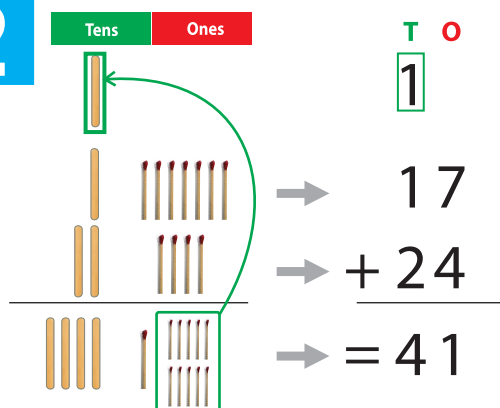
Number Sense



Kinaesthetic → Concrete → Abstract

ALfA introduces place values from the beginning, with snaps as ones and claps as tens. Next, children represent numbers using concrete objects (small sticks for 1s, ice cream sticks for 10s, and so forth, before abstract written expression. This helps them grasp place value, even/odd numbers, patterns, ordering, zero, more/less better this way.

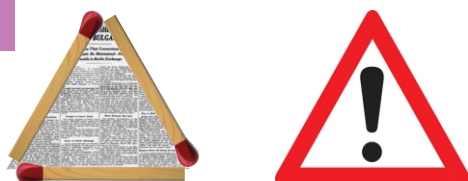
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Mastery of Operations

Ten small sticks make a one ten or one ice cream stick. A strong grasp of place value helps children understand carryover, borrowing, and regrouping intuitively. Using concrete to abstract methods, they build fluency in all operations, estimation, and problem-solving.

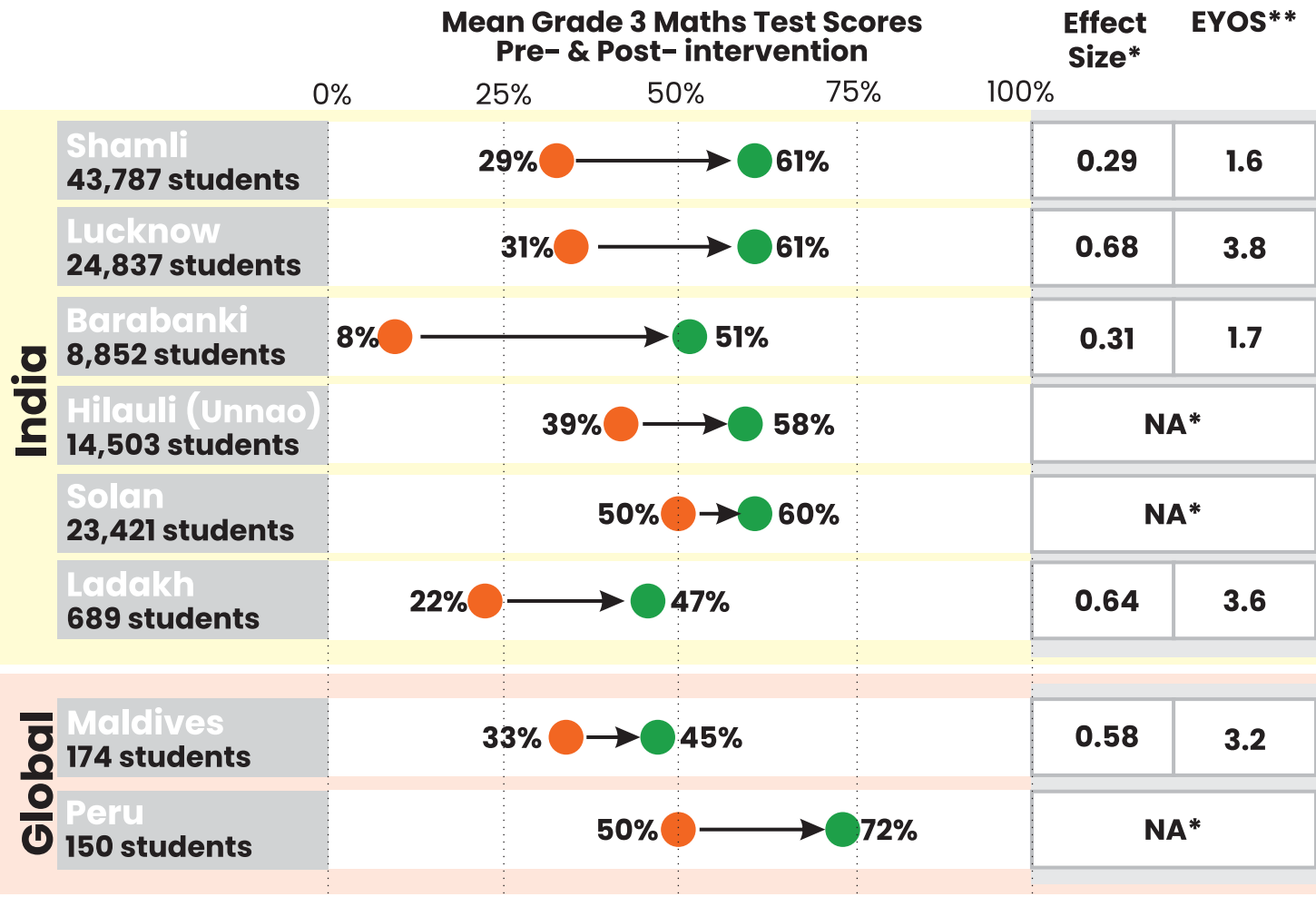
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Real-life Application

By engaging with money, time, measurement, shapes, fractions, directions, estimation, and data handling, children develop a deep, hands-on grasp of mathematics in daily practical life.

EXTRAORDINARY RESULTS



* **Effect size** (in this case, Cohen's d) is a statistical measure of how substantial the impact of an intervention is. This measure is not applicable (NA) in interventions without a control group.

** **Equivalent Years of Schooling.** A World Bank report (scan/click QR) has estimated that a typical year of schooling in LMICs generates learning gains of 0.15–0.21 effect size. An intervention with 1 EYOS means children in the treatment group gained the learning equivalent of 1 year of 'normal' schooling.



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| International Case Studies | Harvard on ALfA FLN | Impact Data | Evidence & Publications | Endorsements | A Pathway to Scale |
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HIGHLY COST-EFFECTIVE

“One of the challenges facing many teachers is the extreme diversity of learning levels. Teaching at the Right Level (TaRL) solves this problem by grouping students by ability, whereas ALfA transforms the mixed learning levels from a challenge to a strength through paired learning.

While ALfA is newer and still emerging compared to established programs such as TaRL and Structured Pedagogy, its ability to deliver swift learning gains positions it as a promising strategy for achieving universal literacy and numeracy.

- Aïcha Bah Diallo

Former Minister of Education, Guinea

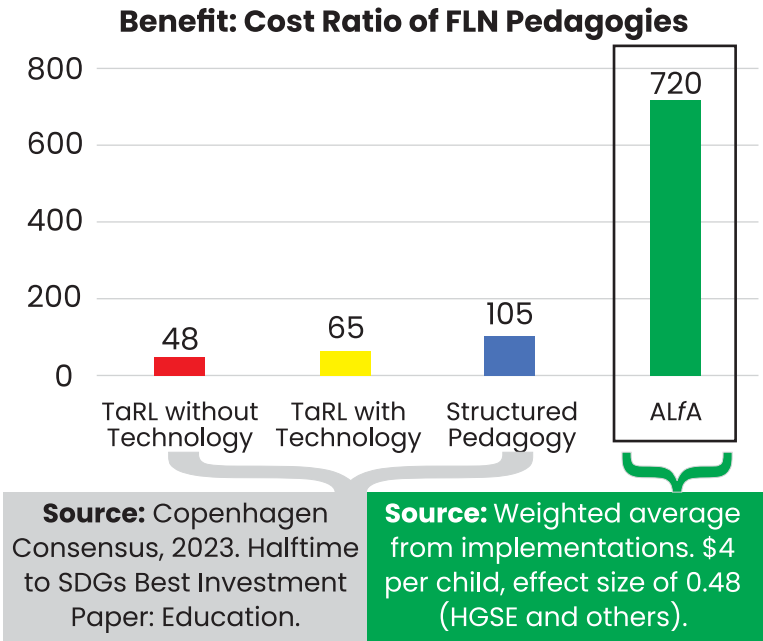


Table: Comparison of popular, evidence-based FLN pedagogies

| Feature | Structured Pedagogy | TaRL | ALfA |
|--|---|---|--|
| Core Approach | Standardized lesson plans and scripted teaching. | Grouping students by ability level and targeting instruction accordingly. | A process-led structure that scaffolds learning through paired activities. |
| Holistic & Social Development | Focused primarily on academic content delivery rather than holistic development. | Ability-based grouping can unintentionally lead to a fixed mindset. | Develops 21st-century skills such as collaboration, citizenship, equity & inclusion through random paired learning. |
| Speed & Efficacy | Effect Size: 0.13 (Generally 3-year implementations) | Effect Sizes: 0.08–0.7 (50 days, combination of studies 2005–2014) | Effect Sizes: 0.23–0.89 (India, Maldives: 45 days, 2022–23) |
| Cost | \$8 per child Detailed scripting and material requirements. | \$20–\$27 per child Resources vary by implementation. More significant training required. | \$4 per child Leverages local resources and requires minimal training time. |

References

Dweck, Carol. 2007. Mindset: The New Psychology of Success.

Kalra, Aparna. 2024. How Rich Donors have Caused More Harm than Good to India’s Education. The Wire.
<https://thewire.in/education/how-rich-donors-have-caused-more-harm-than-good-to-indias-education>

Copenhagen Consensus. 2023. Halftime to SDGs. Best Investment Paper: Education.
<https://copenhagenconsensus.com/publication/halftime-sdgs-education>

Teaching at the Right Level: Summary of Interventions.
https://assets-global.website-files.com/61366d43ebd6df56d9b67a11/6174939ed355d9ec8ce755e2_Teaching%20at%20the%20Right%20Level%20Summary%20of%20Interventions.pdf

Click/Scan QR
for more details &
further references



FROM 20 SCHOOLS TO 17,000

Since its inception in 2022, ALfA has exploded in schools around the country and internationally. Looking towards 2025, many other districts and states have expressed interest and signed agreements for starting or expanding ALfA programs.

Exponential Growth

Himachal Pradesh

Implementation has begun in 496 schools of Solan district, with an MOU in place for taking it state-wide.

Ladakh

ALfA is being implemented in collaboration with 17000 ft Foundation in 30 selected schools of Leh district in Ladakh.

Uttar Pradesh

ALfA is being scaled up at the district level across Shamli, Lucknow, Unnao and Barabanki.

Mizoram

An adult literacy program implemented in partnership with the department of education has reached 5000 learners. There are now plans to implement ALfA in primary schools too.

West Bengal

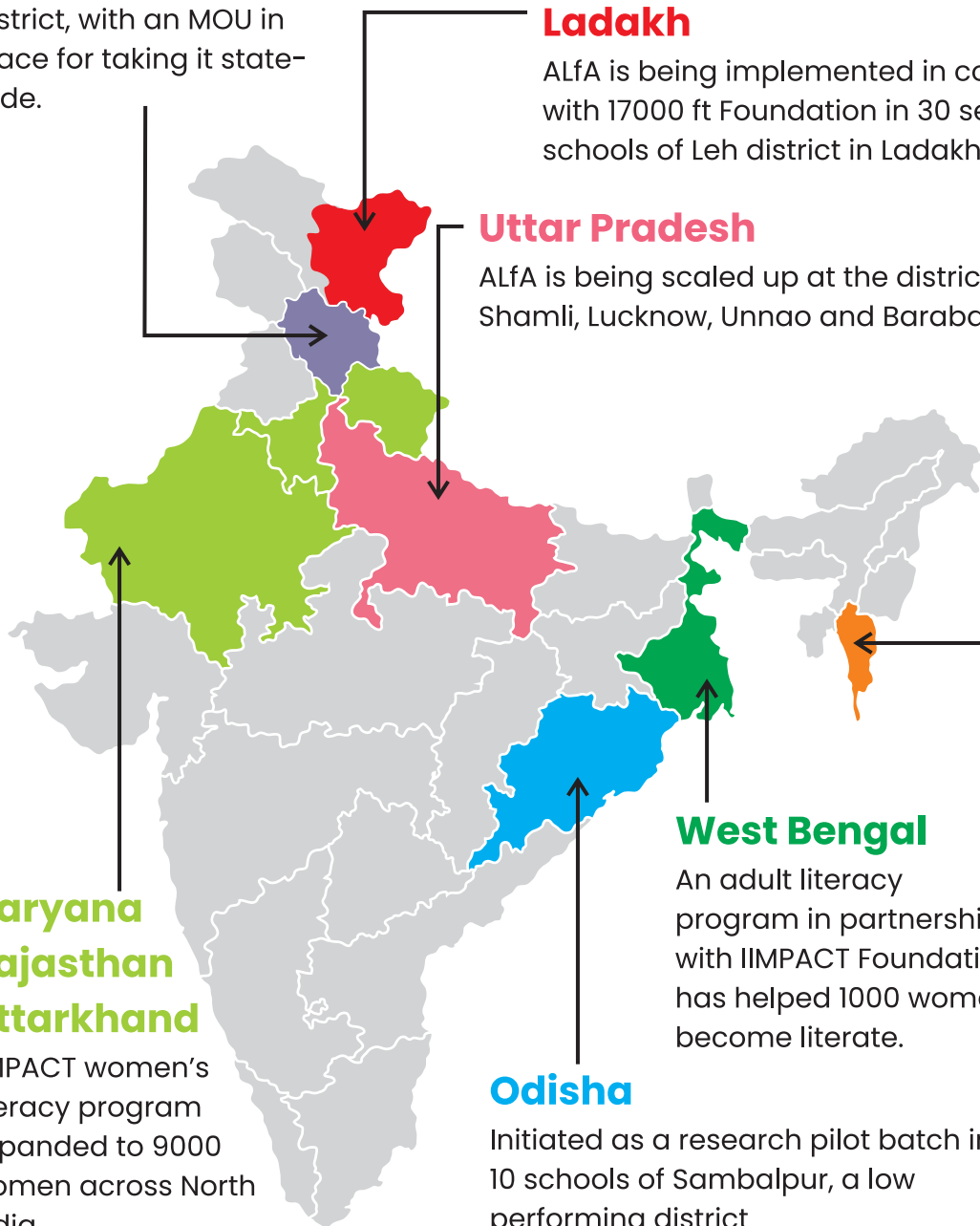
An adult literacy program in partnership with IIMPACT Foundation has helped 1000 women become literate.

Odisha

Initiated as a research pilot batch in 10 schools of Sambalpur, a low performing district

Haryana Rajasthan Uttarkhand

IIMPACT women's literacy program expanded to 9000 women across North India



SCALING PLANS

ALfA has grown exponentially since its 2022 launch, and is garnering attention from national and international leaders.

“Dr. Sunita Gandhi’s 30 hour literacy and numeracy model is highly innovative and scalable.”

Rajnath Singh

Former Minister of Education, UP



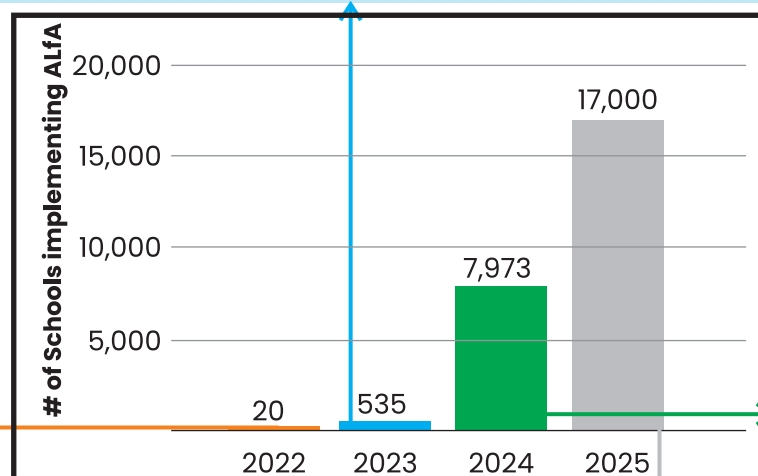
2022

Research pilots in two low-performing districts (Shamli, UP & Sambalpur, Odisha) at request of Ministry of Education's Anita Karwal.

10 treatment & 10 control schools in each district.

2023

Shamli implementation covered in a chapter by Harvard professor Fernando Reimers (**read more on p18**); is scaled up to 210 schools. Implementation scales up in Uttar Pradesh's Lucknow, Unnao, Barabanki districts. Hilauli block of Unnao implements ALfA across all its 155 schools, later tops govt test (**read more on p21**).



2024

Scale up to district level in Lucknow, Unnao, Barabanki and Shamli, with online teacher training.

Implementation in whole district of Solan, Himachal Pradesh.

ALfA pilots internationally in Maldives & Peru

(**read more on p16-17**)

2025 (PROPOSED)

MOUs in place to scale ALfA to 17,000 schools, including the entire state of Himachal Pradesh.

Efforts to embed ALfA within state curriculum and training processes in Uttar Pradesh.

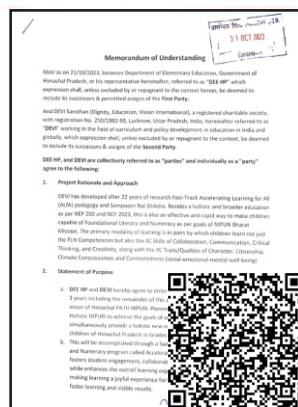


Click/Scan

to Read Agreement with Uttar Pradesh Govt

1 year MOU dated 25 September 2024

Grade 1-5 across all ~7,000 schools of 4 districts: Lucknow, Unnao, Barabanki, Shamli



Click/Scan

to Read Agreement with Himachal Pradesh Govt

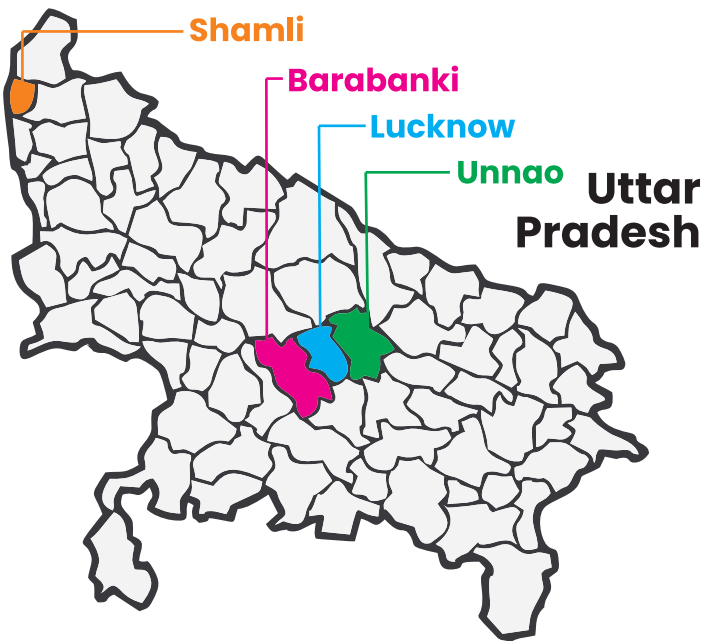
3 year MOU dated 21 October 2023

Grade 1-5 across all ~10,000 schools of the state

RESEARCH IN INDIA'S BIGGEST STATE

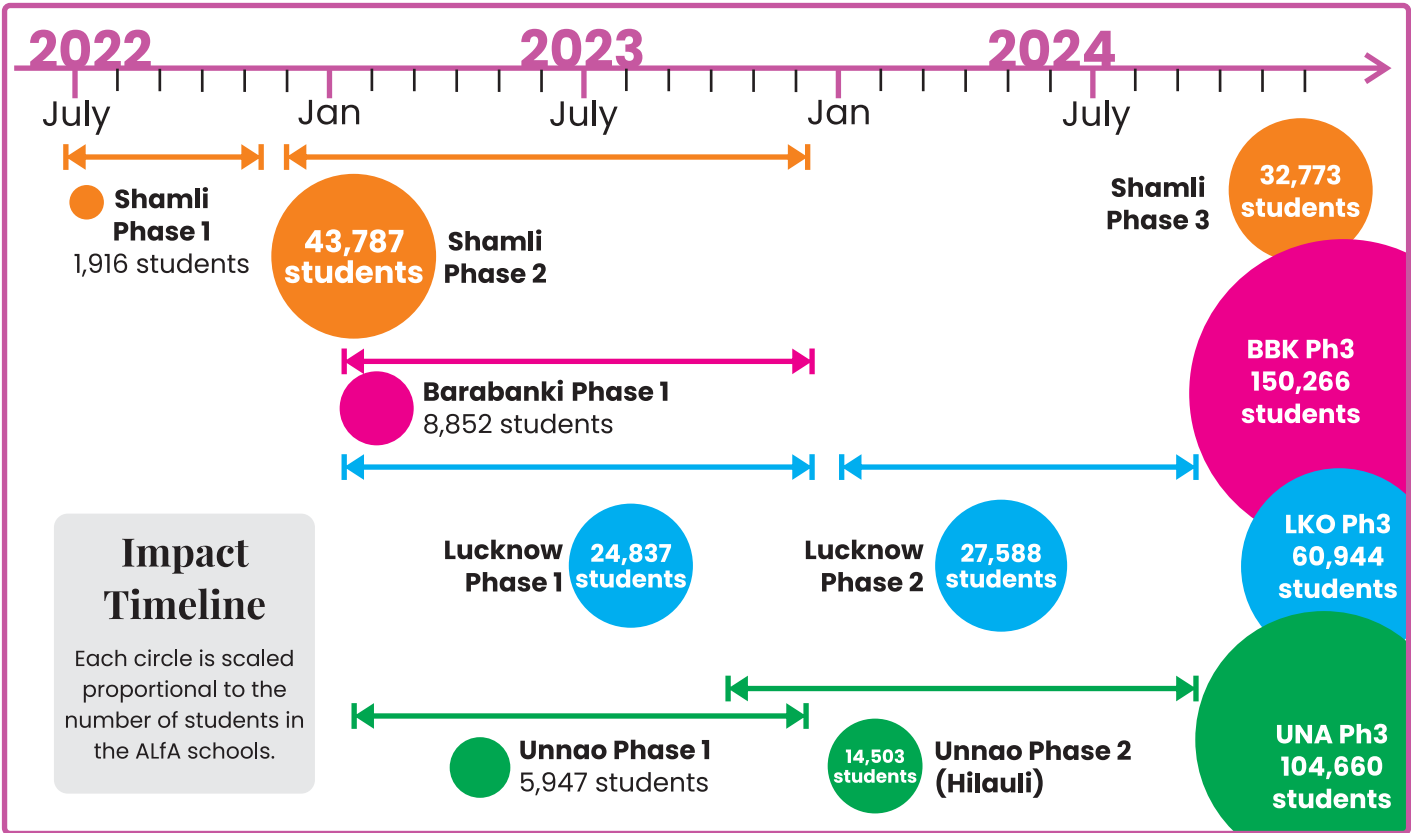
ALfA implementation was conducted initially as randomised control trials, with schools randomly allocated to treatment and control groups. It is now being scaled up to district-wide implementation (for Grades 1-3).

| District | Schools | | |
|----------------|-----------|---------|-------|
| | Treatment | Control | Total |
| Shamli Ph 1 | 10 | 10 | 20 |
| Shamli Ph 2 | 200 | 70 | 270 |
| Shamli Ph 3 | 596 | NA | 270 |
| Barabanki | 30 | 20 | 55 |
| Barabanki Ph 3 | 2,636 | NA | 2,636 |
| Lucknow Ph 1 | 110 | 60 | 170 |
| Lucknow Ph 2 | 582 | NA | 582 |
| Lucknow Ph 3 | 1,401 | NA | 1,401 |
| Unnao Ph 1 | 30 | 20 | 55 |
| Unnao Ph 2 | 155 | NA | 155 |
| Unnao Ph 3 | 2,709 | NA | 2,709 |



7,342 **348,694**
Total Implementation Schools Total Children (Gr 1-3)

As Of Phase 3



A DIFFERENTLY STRUCTURED PEDAGOGY

Accelerating Learning for All (ALfA) is a groundbreaking structured pedagogy, designed to enable children to gain foundational literacy and numeracy skills in as little as 45 days. What makes ALfA so effective? It is the combination of learning materials, pedagogy, curriculum and teacher training.

Click/Scan QR for the ALfA Numeracy Toolkit (English)



MODULAR CURRICULUM

Books are simple, modular, and highly visual, enabling children to learn independently in pairs. Prompts guide teachers through the lesson plan



PAIRED LEARNING

Children work in pairs, building from known to unknown and concrete to abstract, using kinesthetic activities and concrete manipulables.

PAIRED LEARNING

The transaction of learning is not from teacher to student, but rather between two children, who take turns to ask each other questions and solve them using hands-on materials.



TEACHER TRAINING

Highly practical, activity based training with numerous videos of classroom implementation. Proven efficacy in both online & offline settings.

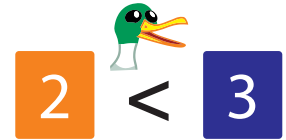
CAREFULLY SCAFFOLDED CURRICULUM

The ALfA numeracy books scaffold from simple to complex concepts with plenty of fun, hands-on activities. Simple prompts and visuals make life easy for teachers & students alike

Unit 1 Lesson 1-13

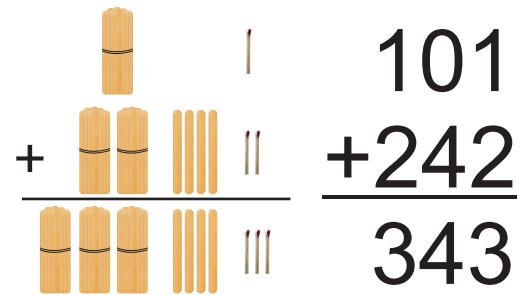
- Number sense with concrete objects & kinaesthetic activities
- Counting, even & odd, tally lines, number comparison
- Writing 1, 2, 3 & 4 digit numbers

90 80 70



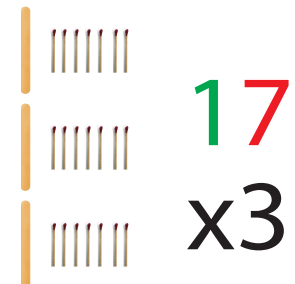
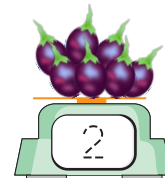
Unit 2 Lesson 14-19

- 1, 2, 3 & 4 digit addition
- 1, 2, 3 & 4 digit subtraction



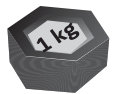
Unit 3 Lesson 20-27

- 1 & 2 digit multiplication
- 1 & 2 digit division
- Money, Number stories



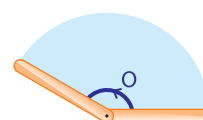
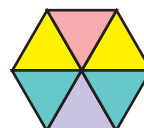
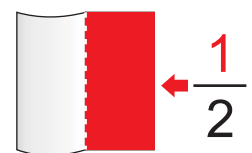
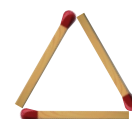
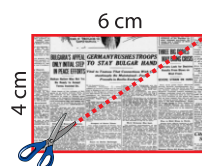
Unit 4 Lesson 28-37

- Estimating & measuring length, weight & volume
- Understanding clocks & calendars



Unit 5 Lesson 38-45

- 2 & 3D shapes
- Angles, Area & Perimeter
- Fractions and decimals



PEDAGOGICAL COMPARISON

| | ALFA | STANDARD TEXTBOOKS |
|-----------------------------|--|---|
| Book length | Slim & light 72 pages total: 32 reading + 12 writing + 28 maths | Bulky & repetitive Often over 300 pages per grade per subject (Textbook + Workbook) |
| Learning methodology | Student-led paired work Experiential learning about 80% of the time. | Teacher-led whole class Experiential learning about 20% of the time. |
| Grouping strategy | Random Pairing No child feels that there are low expectations of them. | Whole Class/ Ability Grouping Those in 'remedial' group may lose self-esteem. |
| Timetabling | Significant Flexibility Emphasis on learning, students progress at their own pace. | Detailed Prescriptions Many left behind as the teacher marches through. |
| Type of questions | Higher-order thinking Students pose questions for each other, developing cognitive skills. | Lower-order questions Matching, true & false, fill in the blank style. |
| Teaching-Learning Materials | Simple TLMs for All Ice-cream sticks & matchsticks are provided to enable all children to participate. | Insufficient TLMs Often not enough materials for everyone to participate in the activity. |



Hands-on activities in pairs building from concrete to abstract



Passive learning, 'chalk & talk', minimal activities or paired interactions

PEDAGOGICAL COMPARISON

Sample ALfA Module

Simple prompts for teacher & students

Narrative framing for questions

Children encouraged to make their own questions

Pictorial representation of activity

Preparation

Tina and Toto, take turns to write some 2 digit addition problems on separate chits as shown.

Story

Tina has \$15, and Toto has \$27. How much money do they have in total?

Activity

Take turns to choose a question chit and solve, such as $15 + 27$.

Tina, put 1 icecream stick and 5 matchsticks for 15.
Toto, put 2 icecream sticks and 7 matchsticks for 27.

Add the matchsticks first. If they add up to 10 or more, put 10 ones in the bank and take 1 ten.

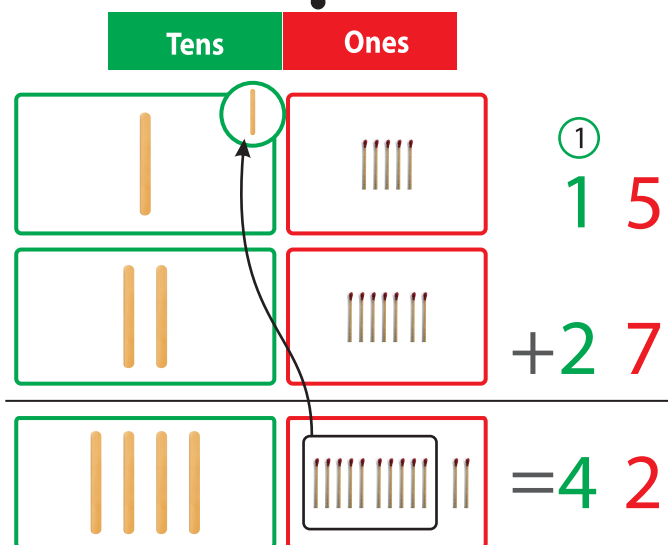
Now add the tens. What answer did you get in total?

$$\begin{array}{r} 16 \\ + 40 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ + 22 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ + 49 \\ \hline \end{array}$$



Sample Standard Textbook Module

① जोड़ करें-

$$\begin{array}{r} 28 \\ + 11 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ + 29 \\ \hline \end{array}$$

② हल करें-

$$65 + 23 = \boxed{}$$

$$53 + 27 = \boxed{}$$

$$72 + 13 = \boxed{}$$

③ मिलान करें-

$$62 + 18 \quad \text{86}$$

$$55 + 23 \quad \text{47}$$

$$57 + 29 \quad \text{63}$$

- Minimal pictures
- No concrete objects
- No narrative structure
- Text heavy
- Numerous, repetitive, lower order questions

ALIGNED TO GOVT CURRICULAR FRAMEWORK

ALfA meets all competencies required under India's National Initiative for Proficiency in reading with Understanding and Numeracy (NIPUN, Grades 1 & 2) program and the National Achievement Survey (NAS, Grades 3 & 5). ALfA saves time and paper through short, visual modules; with children making their own practice questions rather than being drilled with repetitive worksheets.



Representative sample of competencies & their mapping in ALfA & traditional programs

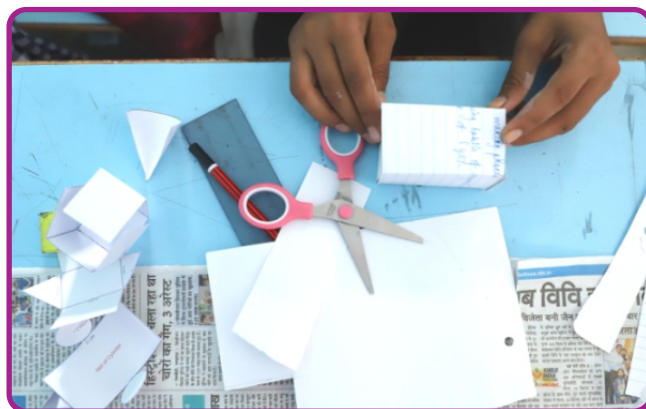
| | NIPUN/NAS Competency | ALfA Program | Traditional Program* |
|---------|---|---|--|
| Grade 1 | Read and write numbers up to 99 | 6 pages Lessons 1-3, 7, 8, 10 | 21 pages Week 14-16 |
| | Solve word problems involving single-digit addition and subtraction | 2 pages Lesson 14 & 17 | 7 pages 7 pages Week 18 |
| | Recognize and describe the properties of 3D shapes | 1 page Lesson 40 | 6 days 7 pages Week 19 |
| Grade 2 | Read and write numbers up to 999. | 7 pages Lessons 1-3, 7, 8, 10, 13 | 42 days 49 pages Week 4-10 |
| | Recognise & describe 2D shapes, e.g. rectangle, triangle, square, circle | 1 page Lesson 38 | 6 days 7 pages Week 19 |
| | Understand multiplication as repeated addition, and construct the 2, 3 and 4 times tables | 2 pages Lesson 20 & 21 | 6 days 7 pages Week 17 |
| Grade 3 | Solve addition and subtraction problems (including word problems) with numbers up to 999 | 4 pages Lessons 14-15, 17-18 | 6 days 7 pages Week 21 |
| | Recognise and read dates off a calendar, be able to tell the time. | 2 pages Lesson 36-37 | Not covered |
| | Notice, describe and construct simple patterns in numbers, events, and shapes | 1 page Lesson 28 | 6 days 7 pages Week 20 |

PHOTO COLLAGE NIPUN GRADE 3 COMPETENCIES



Reads and writes numbers up to 9999

Identifies and relates basic 2D and 3D shapes, describing their properties.



Solves daily life problems using addition and subtraction of numbers up to 999.



Reads time on a clock in hours and half-hours.



Identifies, extends and communicates simple patterns on numbers, events and shapes.









Constructs and uses multiplication and division facts



MASSIVE OPEN ONLINE TRAINING

DEVI Sansthan conducted a series of Massive Open Online Training workshops, empowering teachers from across India and around the world with the ALfA methodology. Training sessions included videos taking participants inside the ALfA classroom, exploration of the ALfA material, and practice of many hands-on activities.

| | |
|---|--|
|  HIGHLY EFFECTIVE | Going inside real classrooms leads to practical understanding and immediate action |
|  HIGHLY INTERACTIVE | Participants use the chat and quizzes to interact with each other in real time sharing |
|  HIGHLY SCALABLE | Thousands can participate simultaneously |
|  HIGHLY CONVENIENT | Participants can learn from the comfort of home |
|  NO CARBON | No need to travel around the world |
|  FREE | No need for an expensive venue & equipment |

MOOT 2023 PARTICIPATION & EFFICACY

66

countries with
representatives
from all 6 continents
participated

28

states of India
participated

72%

of participants
expressed interest
in becoming an
ALfA trainer

86%

of participants
said they would
'definitely' use
ALfA in their
class

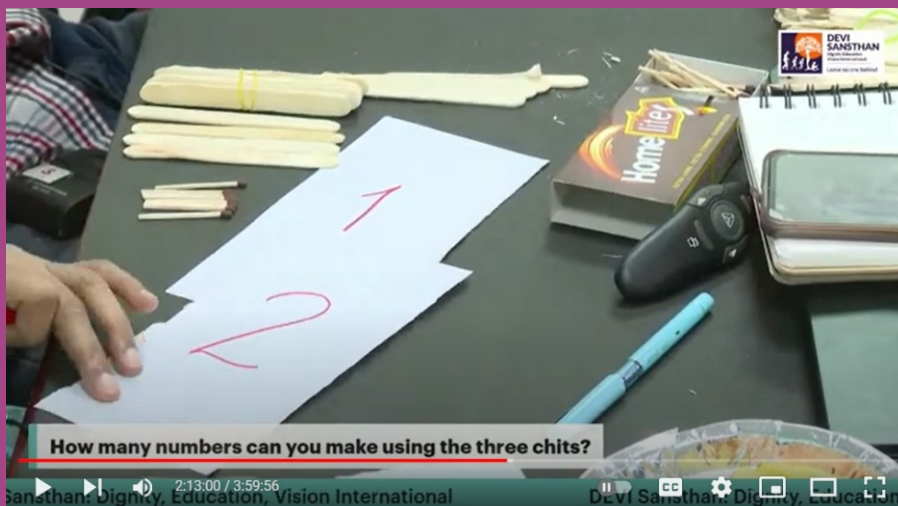
97%

of participants
passed the quiz
& were shared
free access to
ALfA materials

99%

of teachers said
they had new
take-away
points from the
training

ENGAGING ACTIVITIES



Top chat replay ▾

- S** Sunil Kumar 6
- B** Bhawna Chundawat 6
- P** Priya Vijay 6
- S** Sunil Kumar 123, 132, 231, 213, 312, 321
- A** Asiya Begum 6

How many numbers can you make using the three chits? Activities like this are ready-to-use in the classroom, and engage teachers in the online training.

TEACHER TESTIMONIES

Mamta
(PS Narpat Khera)

Known se Unknown ki taraf ja kar bacche learn kar rahe he. Tareeka zyada effective he

[Children are learning with the known to unknown method, which is highly effective.]

Miguel Angel Peña Flores

Greetings from Peru! ALfA will make a big difference here.

Hemlata Sahu

यह बहुत अच्छा तरीका है इसमें बच्चे अपने साथी के साथ, चित्र के नाम के पहले अक्षर (आवाज) भी सिख रहे है।

[This is an excellent method, in which children collaborate to derive the first sound from the name of a picture.]

Padmaja Tripathi SRG

सारे बच्चे रुचि के साथ से पढ़ने में व्यस्त हैं

[All the children are learning with each other in pairs, which is remarkable in and of itself. They are learning maths through games. Amazing!]

Chhama Singh

pair me sabhi bachche apni impotance dekh rahe hai doosara ye sabhi se samanjas bithaana seekhte hai.

[All children feel valued and important with paired learning. They also learn how to sit with each other as equals.]

Sarita Devi

बच्चों को अल्फा की किताबें पढ़ने में मजा आयेगा क्योंकि ये किताबें चित्रात्मक जय हैं

[Children will enjoy learning to read with the ALfA books, because these books are pictorial.]

ENGLISH

Numeracy



Literacy



HINDI

Numeracy



Literacy



Scan the QR codes to watch recordings of the MOOT Sessions.

PAIRED LEARNING THE EVIDENCE

Children working together in pairs, rather than passively listening to the teacher, can transform the pace and quality of learning.

The Problem

In a traditional classroom, the teacher is unable to pay attention to each individual student: as the teacher progresses through the curriculum, many students are left behind.

A Disruptive Approach

In pairs, even the shiest child becomes an active participant in learning. Learning is highly engaging, with each pair progressing at their own pace.



Click or Scan the QR to read more paired learning research.



Click or Scan the QR to watch a video on paired learning in the classroom.

Studies around the world have found that peer learning has a huge array of academic and social benefits:



improved academic performance¹



deeper understanding²



equality between students³



higher engagement⁴



improved behaviour⁵

Table Key differences between traditional and ALfA classrooms

| Traditional classroom | ALfA classroom |
|---|---|
| Students working in whole class or groups, sitting in rows facing the teacher. | Students working in pairs is the main modality, they are facing each other. |
| Children are grouped by skill level. Groups are fixed for a long period of time. | Random pairing ensures diversity. Pairs are changed frequently, so that children get to mix and work with others of all ability levels and backgrounds. |
| All children are on the same textbook page, everyone is working on the same question. Some are bored while others find it too difficult | Different pairs are on different modules at any given time; children ask each other questions so work on unique problems. |

Research & References

1. Academic Performance: Babayigit, Ö. & Erkus, B. (2022). Effect of Peer Teaching on the Academic Achievement of Fourth Grade Primary School Students. *International Journal of Psychology and Educational Studies*, 9(3), 782–791.

2. Deeper Understanding: Romano, P. & Walker, J. (2010). “Bio Buddies:” Peer Tutoring as an Instructional Strategy. *NERA Conference Proceedings 2010* (3), pgs 1–69.

3. Equality: Lorenzo, M. et al. (2006). Reducing the gender gap in the physics classroom. *American Journal of Physics* 74(2), 118–122.

4. Higher Engagement: Arieno, C.L. (2007). The Advantages of Class Wide Peer Tutoring in an Urban Eighth Grade Inclusion Science Class. [Unpublished master’s thesis]. State University of New York at Brockport.

5. Improved Behaviour: Eskay, M. et al. (2012). Use of Peer Tutoring, Cooperative Learning, and Collaborative Learning: Implications for Reducing Anti-Social Behavior of Schooling Adolescents. *US-China Education Review (11A)*. Pages 932–945.

EDTECH ASSESSMENTS

AlfA assessments foster cooperation not competition and prompt students to focus on learning progress, not marks.

The Problem

- Many exams test factual recall but not deeper understanding.
- Exams are used to classify students into 'strong' and 'weak' – labels that are unhelpful for all.
- Exams take days or weeks for teachers to mark, creating a substantial lag between the student sitting the exam and receiving feedback.
- When students do receive feedback, all they typically get is a percentage or grade, which doesn't help them understand the specific areas they need to work on.¹



Click or Scan the QR to read more research on ipsative assessments

A Disruptive Approach

Assessment data should be used to 'identify areas of learning and development where children may need support or extension'.² Tests should be ipsative – that is, children should be competing with themselves, striving to improve over their past efforts, rather than competing against each other.³

Table Re-examining exams

| | Traditional Assessments | Paradigm Shift |
|----------------------------|--|--|
| Why? Purpose | Summative: Sorting and ranking students. | Formative: Informing the teaching-learning process. Students compete with themselves, not each other. |
| What/ When? Methods | High-stakes exams: Lots of memorisation required, fixed timings. | Low-stakes repertoire: Mix of assignments and portfolios too. Frequent, unannounced tests, problem-solving and unseen passages. |
| How? Reporting | Focus on overall marks: Lots of teacher marking required, delayed results, takes away time from learning. | Focus on Progress: Use Pragati or similar app to provide specific, easy-to-understand feedback for learner, teacher and policy-maker. |

Research & References

¹ Markovich, Isidora. 2021. Why Giving Instant Feedback is Important for Effective Learning. EDUME. <https://edume.com/blog/role-of-feedback-inimproving-learning>

² Ministry of Education, Government of India. 2021. NIPUN Bharat Guidelines, p. 131. https://dse.education.gov.in/sites/default/files/NIPUN_BHARAT_GUIDELINES_EN.pdf

³ Gandhi, Sunita. 2017. Compete With Yourself (CWY): Maximising Learning Gain in Schools. In: Hughes G. (eds) Ipsative Assessment and Personal Learning Gain. Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-56502-0_11

SMART ASSESSMENTS

The ALfA program in government schools uses a revolutionary form of assessment which provides instant, detailed feedback that can inform and shape the learning process.

The assessment paper is designed based on government curricular frameworks, in consultation and translated into the local language.



Assessment is typically conducted by college students, after receiving a training from the DEVI team. The OMR sheets are scanned using the Pragati App, which allows instant data collation and analysis. The App generates a detailed personalized report card at multiple levels (child, class, school, district) which shows with a colour code which topics have been mastered and which need more work. Pragati report cards enable children to focus on their progress over time rather than comparing against others.

Instant Competency-Wise Feedback with Pragati App

Pragati Pre-Test
MATHEMATICS गणित
SECTION A
SURVEY CODE: 0 0 0 0 0 6

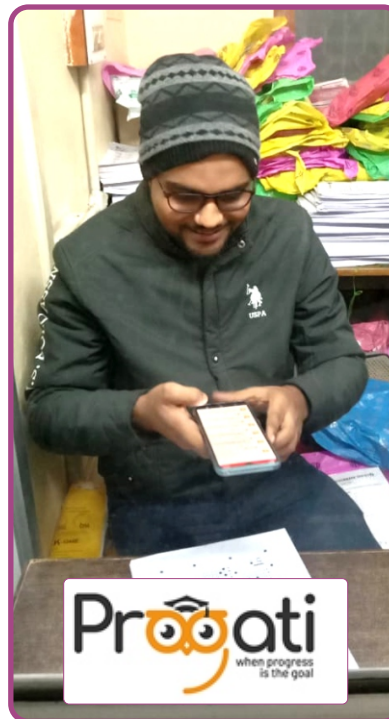
प्रश्न 1. तारों को गिन कर सही संख्या लिखें।
☆☆☆☆☆☆☆☆
A. 5 B. 7 C. 8
D. 9 E. 6 F. पता नहीं

प्रश्न 2. रिक्त स्थानों को उचित संख्या से भरें।
[6] [] [9] [10]
A. 7, 8 B. 8, 9 C. 5, 6
D. 5, 7 E. 2, 3 F. पता नहीं

प्रश्न 3. ज्यादा सेब समूह वाले बक्सों को चिह्नित करें।
A. [3 सेब] B. [3 सेब] C. [3 सेब]
D. [2 सेब] E. पता नहीं

प्रश्न 4. दिए गए पैटर्न क्रम को पूरा करते हुए अगली तीन आकृतियाँ बनायें।
A. △□○ B. □○△ C. □△○
D. ○△□ E. ○□△ F. पता नहीं

प्रश्न 5. दी गई संख्याओं को छोटे से बड़े के क्रम में रखें।
3, 4, 2, 1, 5
A. 1, 3, 2, 4, 5 B. 1, 2, 3, 4, 5 C. 1, 2, 4, 3, 5
D. 4, 5, 3, 1, 2 E. 5, 4, 3, 2, 1 F. पता नहीं



STEP 1

Children sit test

STEP 2

Answers filled on OMR sheet by surveyors

STEP 3

OMR sheet scanned & uploaded using DEVI's Pragati App

COMPETENCY ANALYSIS

The question paper and pre-post design allows policymakers to measure learning levels and rates of improvements in specific competencies.

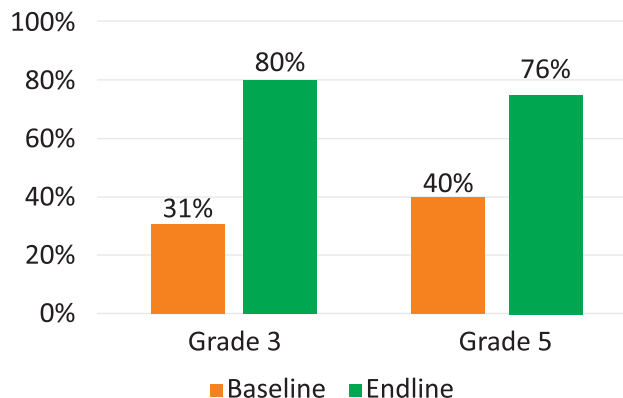
Grade 1 Adding and subtracting numbers up to 99.

Item*

Sohan bought 15kg potatoes, 7kg onions and 3kg brinjals from the market. What weight was it in total?

- (A) Don't know (D) 27 kg
(B) 26 kg (E) 25 kg
(C) 28 kg (F) 15 kg

Results**

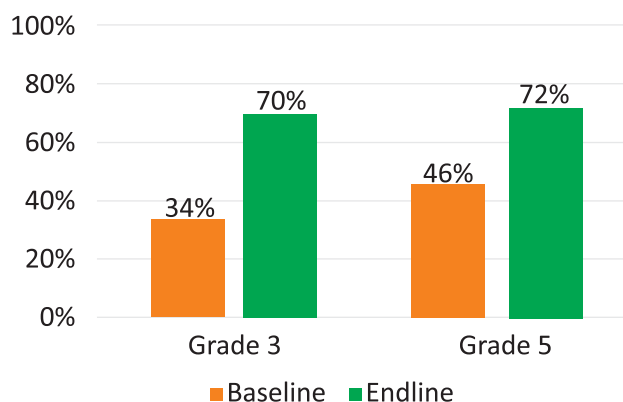


Grade 1 Understanding and representing sequences & patterns.

Fill in the correct numbers

| | | | | |
|--|--|----|--|----|
| | | 95 | | 97 |
|--|--|----|--|----|

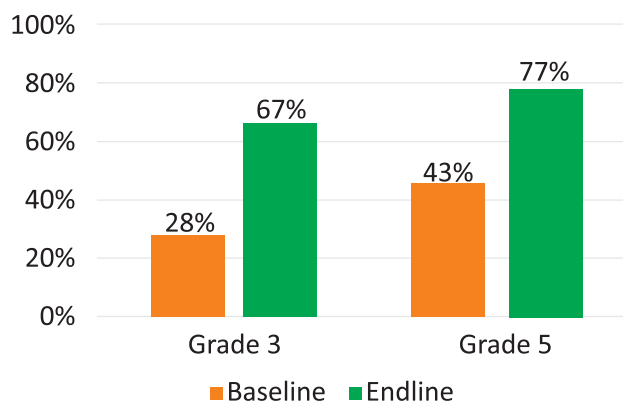
- (A) Don't know (D) 92, 93, 98
(B) 93, 94, 96 (E) 91, 92, 93
(C) 92, 94, 98 (F) 92, 93, 96



Grade 2 Understanding numbers up to 999.

Write the number '202' in words

- (A) Don't know
(B) Two zero two
(C) Two hundred and two
(D) Two hundred and twenty
(E) Twenty two
(F) Two thousand and two



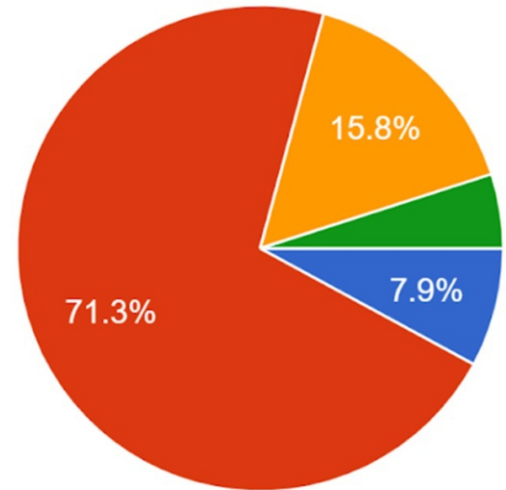
* Children in Shamli were given identical test items in Hindi, their mother tongue

** Results are from Phase 2 implementation in Shamli, Uttar Pradesh. Read more on p18-19.

INTERNATIONAL CASE STUDIES

MALDIVES

The Ministry of Education engaged DEVI Sansthan (with UNICEF support) to undertake an ALfA pilot. 13 schools are implementing ALfA while 5 are serving as a reference. From September to December 2023, test scores in ALfA schools improved 7 percentage points in English and 11 percentage points in Maths – nearly **double the rate** of improvement compared to reference group schools.



79% of teachers polled felt the **rate of learning** was higher compared to last year.

- Far greater
- Greater
- Same as last year
- Lower



Teachers' Testimonies

“

I believe in fostering independent learning and problem-solving, promoting peer collaboration and incorporating reflection opportunities. These strategies empower children to take ownership of their learning journey.

– Aysharth Sumaa

“

In my opinion, ALfA is a great opportunity for students to learn together in a collaborative, friendly environment. Students work together to complete the tasks and modules, as a result, they are very well connected with each other.

– Hawwa Lamsha

Click or Scan the **QR code** to hear more testimonies from Maldivian teachers.



Click or Scan the **QR code** to hear the views of **Dr Abdullah Rasheed Ahmad, Minister of State for Education.**

INTERNATIONAL CASE STUDIES

PERU

In collaboration with Arca Beta NGO, we are piloting ALfA in a school in the remote Amazon. Results are impressive, and discussions are now underway with government for scaling up.



Click or Scan the **QR code** to watch classroom footage from

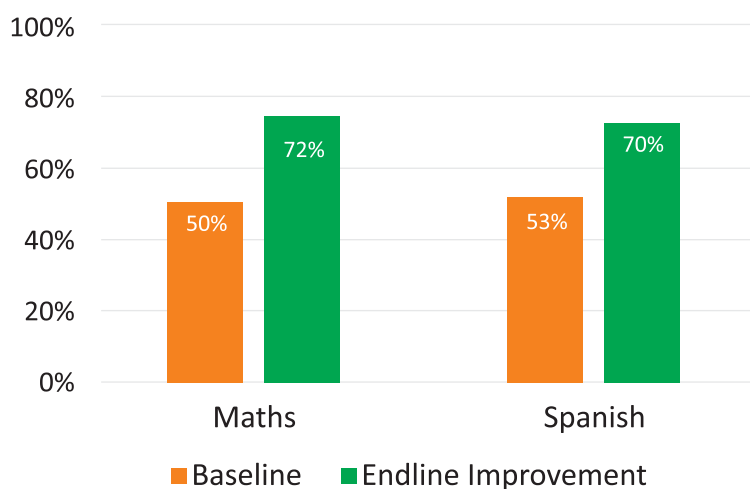
Peru



“

When the students came first, they wrote scribbles; they didn't know how to read. The students began to pronounce the images and words from the communication book. They worked in pairs. They began to form simple words, then more complex words and small sentences. Now, 80% of the students are reading. It is engaging and exciting for the students. Thank you so much.”

**Sheila, Grade 1A
Teacher, Sachachorro
school, Iquitos, Peru**



**Test scores in Sachachorro
school, before and after 45 day
ALfA implementation**

HARVARD ON ALfA FLN

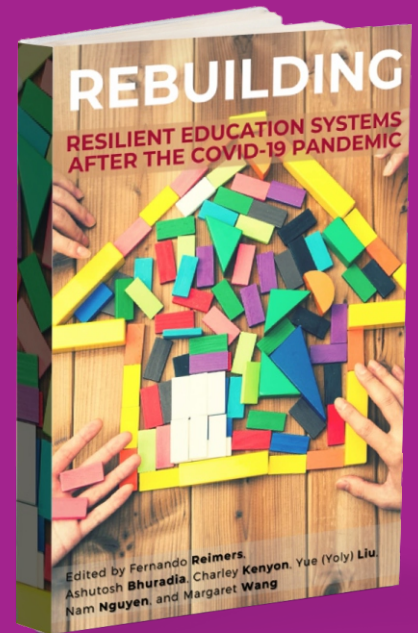
Policy Pathways for Improving Foundational Literacy and Numeracy in Uttar Pradesh, India

*in “Rebuilding Resilient Education
Systems After the COVID-19 Pandemic”,
Harvard Prof Fernando Reimers et al*

Harvard Graduate School of Education, USA



Click or Scan QR



“

We recommend the UP government (1) incorporate the promising ALfA pedagogy developed by DEVI for the first 6 weeks to quickly establish a strong FLN foundation, (2) after the ALfA program, shift to the curriculum.

”

“

The effect size* of the project was **0.23 for Grade 3** students and **0.89 for Grade 5**... the results suggest there is significant value in pursuing the ALfA model in other schools if implemented in a coherent, structured, and coordinated manner.

”



***Effect size (in this case, Cohen's d) is a statistical measure of how substantial the impact of an intervention is. 0.23 is considered a substantial effect size, and 0.89 very large. A World Bank report has estimated that a typical year of schooling in LMICs generates learning gains of 0.15–0.21 standard deviations; indicating that the Shamli intervention produced learning gains the equivalent of 1–4 years' of schooling.**

Click/scan QR for World Bank report on Equivalent Years of Schooling



SHAMLI CASE STUDY

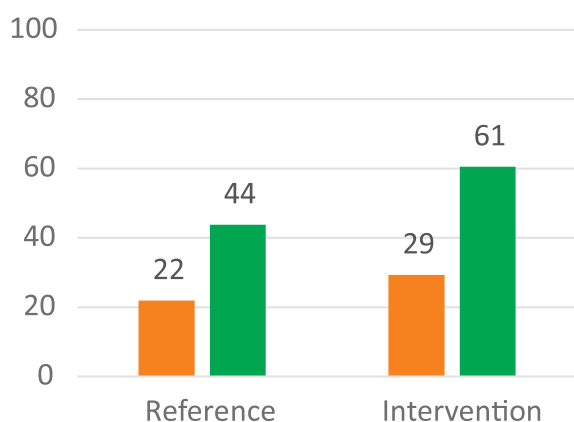
Shamli was one of India's 'low performing districts' in 2022, when the Ministry of Education requested an ALfA pilot in 10 schools. Following impressive results, the district administration agreed to scale up to 200 schools, with 70 as a control.

ALfA students' rate of learning was around 1.5x greater compared to students in non-ALfA control schools, with similar gains across different grade levels. Surprisingly high gains in control schools were partially explained by some teachers in intervention schools acknowledging that they had shared ALfA materials with colleagues in the control group. The district ended up scoring well above the state average in the government NIPUN Assessment Test (overleaf).



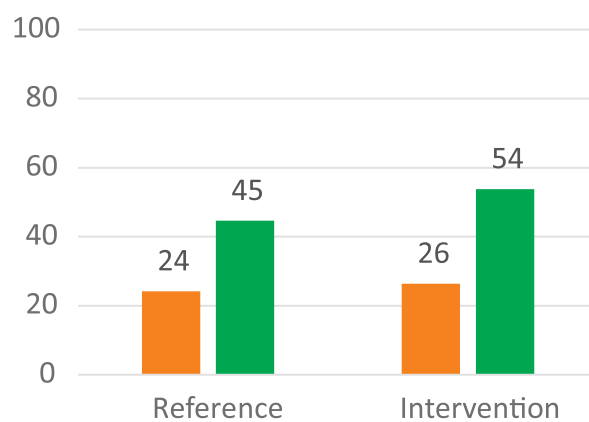
Click/Scan QR to view a **news report by the Print** on ALfA implementation in Shamli.

Grade 3 Maths



■ Baseline (November 2022)
■ Endline (March 2023)

Grade 5 Maths



Testing was conducted in 40 schools (randomly selected) out of 200.

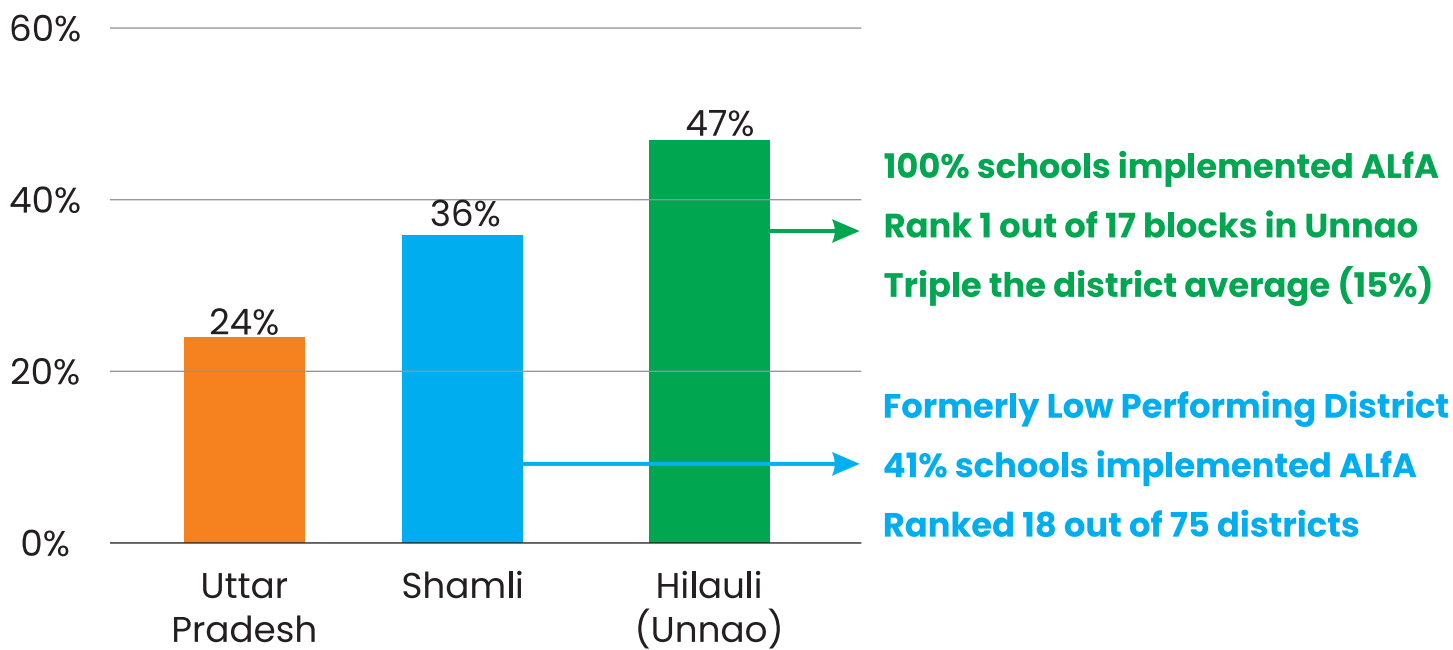


IMPACT DATA

NIPUN ASSESSMENT TEST

The NIPUN Assessment Test was conducted in schools across Uttar Pradesh in late 2023, and results were released in February 2024. District-wise analysis showed a strong correlation between the proportion of schools taking up ALfA in a particular district, and its scores on the NAT, as shown in the figure below.

Results in NAT After Just 45 Days of ALfA



Results in NAT: Comparison of ALfA schools with overall averages

| | | Schools Tested | # Schools NIPUN | % Schools NIPUN | |
|--|---------------------|----------------|-----------------|-----------------|-----------|
| UP Overall Schools Tested | | 68,352 | 16,169 | 24% | |
| 4 districts (Lucknow, Shamli, Unnao, Barabanki) | Schools Tested | 3,682 | 638 | 17% | 2x Impact |
| | ALfA Schools Tested | 344 | 120 | 35% | |
| 1 District (Hilauli Block versus Unnao averages) | Schools Tested | 1,322 | 193 | 15% | 3x Impact |
| | ALfA Schools Tested | 85 | 40 | 47% | |



Click/Scan QR to check out the UP NAT data



Click/Scan QR to watch a video on ALfA in Hilauli and Shamli

HILAULI CASE STUDY

निपुण भारत मिशन में हिलौली प्रथम, पुरवा दूसरे और हसनगंज तीसरे स्थान पर

जागरण संवाददाता, उन्नाव: सरकार साक्षरता में वृद्धि के लिए लगातार प्रयास कर रही है। देश का हर बच्चा शिक्षित हो और अभिभावक शिक्षा कार्यक्रम से जुड़े रहे। इसके लिए भारत सरकार द्वारा निपुण भारत मिशन की शुरुआत की गई है। जिसका उद्देश्य तीसरी कक्षा तक के बच्चों में आधारभूत साक्षरता और संख्यात्मकता ज्ञान को बढ़ावा देना है। निपुण भारत मिशन लक्ष्यों की प्राप्ति के लिए सभी ब्लकों की कंपोजिट रैंकिंग सूची शासन द्वारा जारी की गई। जिसमें सभी पैरामीटर्स में विकासखंड हिलौली प्रथम, पुरवा द्वितीय और हसनगंज तीसरे स्थान पर रहा।

निपुण भारत रैंकिंग में जिले के अंदर चौथे स्थान पर नवाबगंज ब्लॉक रहा। जबकि, असोहा, बिछिया, सिकंदरपुर कर्ण, मियागंज व सफीपुर की रैंक औसत रही। वहीं जिन ब्लकों में रैंक फिसड़ड़ी रही। उनमें सबसे नीचे नगर क्षेत्र इसके बाद सुमेरपुर, फतेहपुर,

- नगर क्षेत्र, सुमेरपुर व फतेहपुर चौरासी रहा फिसड़ड़ी
- अन्य 10 ब्लॉक निपुण रैंकिंग में रहे औसत

सिकंदरपुर सरोसी, बीघापुर, बांगरमऊ, गंजमुरादाबाद, औरास ब्लॉक रहे।

हसनगंज ब्लॉक के शिक्षक रवींद्र सिंह, सशांक सिंह, एआरपी शैलेंद्र सिंह, मोहदीनपुर प्राथमिक विद्यालय की प्रधान शिक्षिका प्रीति वर्मा, भांभाऊ की ज्योति वर्मा, नमिता सिंह, सूर्यकांत सिंह, अनुपमा जयसवाल, दीपक कुशवाहा आदि ने हर्ष व्यक्त कर बीईओ को बधाई दी। बीएसए संगीता सिंह ने बताया कि शासन द्वारा सूची जारी की गई है। जिसमें हिलौली, पुरवा व हसनगंज ने बेहतर रैंक पाई है। यह संबंधित ब्लॉक की पूरी टीम द्वारा ईमानदारी से काम करने का परिणाम है।

ब्लॉकों की रैंक प्रतिशत के हिसाब से

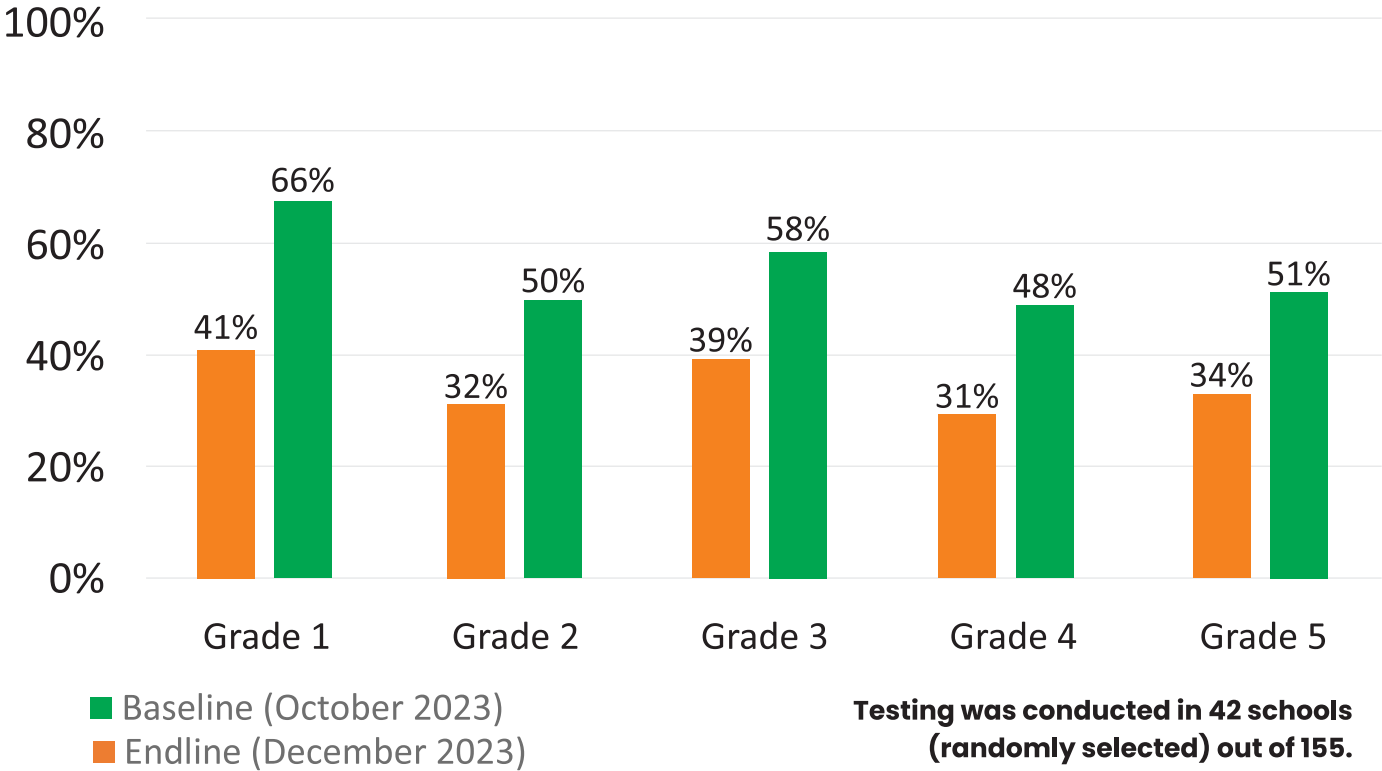
| | |
|--------------------------|-----|
| 1-हिलौली | 40 |
| 2.पुरवा | 32 |
| 3.हसनगंज | 20 |
| 4.नवाबगंज | 16 |
| 5.असोहा | 11 |
| 6.बिछिया | 11 |
| 7.सिकंदरपुर कर्ण | 11 |
| 8.मियागंज | 10 |
| 9.सफीपुर | 10 |
| 10.औरास | 09 |
| 11.गंजमुरादाबाद | 09 |
| 12.बांगरमऊ | 04 |
| 13.बीघापुर | 04 |
| 14.सिकंदरपुर सरोसी | 04 |
| 15.फतेहपुर | 04 |
| 16.सुमेरपुर | 01 |
| 17.नगर क्षेत्र | 0 |
| जिले में कुल निपुण स्कूल | 193 |

In a government test conducted in November 2023 (partway through the ALfA implementation), Hilauli topped the ranking among Unnao's 17 blocks. 85 of Hilauli's schools were tested, out of which 40 were deemed to be 'NIPUN schools'.* This translates to 47% of Hilauli's schools being NIPUN, over triple the rate for Unnao overall (15%) and double the state average (24%).

A 'NIPUN school' is defined as one in which 80% or more of sampled students passed the basic literacy assessment in each of Grade 1, 2 and 3.

Third party testing in Hilauli revealed significant learning gains across all primary grades, indicating ALfA's versatility for different-aged children.

Maths Test Scores



EVIDENCE & PUBLICATIONS

Accelerating Learning for All A Groundbreaking Pedagogy to Transform Education



Bloomsbury,
January 2024



"All students should be able to learn to read quickly so that they can maximize their academic potential and ALfA does that."

Jon Corippo

Founder of EduProtocols, USA

"This book provide some insightful and unique ideas about creating a pedagogy of possibility. It will undoubtedly create the conditions for a better world."

Sigamoney Naicker

Professor, University of the Western Cape

Book Extract

“ When we ask people what subject they love most, we get quite a variety of responses: Language, Science, Physical Education, etc. Yet when we ask what their least favourite subject is, most children (and adults) unite in choosing Maths.

Let's understand why...

- Maths teachers drill formulae and techniques until they're automatic for the students. But many children don't understand the reasoning behind the drills; they only do it that way because they were told to, so the work feels arbitrary.

- Maths involves many abstractions. These abstractions can be challenging for learners who don't yet have a conceptual understanding.
- Long lists of number problems appear disconnected from lived experience and irrelevant to the real world.
- Most maths work is individualised, so children do not interact with other students.
- Maths is usually taught via an inflexible process, leaving no room for creativity.”

**Click/Scan QR to read the
rest of Chapter 3,
'Making Maths Make Sense'**



Disruptive Literacy

A Roadmap for Urgent Global Action



Bloomsbury,
August 2022



"A much-needed manifesto for achieving large scale transformation of the global literacy crisis."

Ernesto Schiefelbein

Former Minister of Education, Chile

"A must read for policymakers and all those associated with the campaign against illiteracy."

Anil Swarup

Former Secretary of Education, India

Book Extract

“ I understand now! I can do it myself.’
Noor Jahan sounded delighted and a little shocked by her own brilliance.

Just earlier, she had told us, ‘I can’t do subtraction.’ After a little cajoling and explaining, she had given it a try. With the help of some matchsticks and ice cream sticks as counters, she was soon performing two-digit subtraction with borrowing. What years of school had failed to teach her, she had now learned in a matter of minutes.

In teaching basic numeracy, the vital thing is not just that the learner gets the correct answer but that they understand the question and the processes of solving it. As with literacy, the traditional approach to teaching numeracy is slow and ineffective because it doesn’t help build a deeper understanding—it often teaches learners to manipulate symbols without really comprehending what they are doing. This chapter examines the difficulties with the traditional way of teaching maths, and then explores the ALfA approach.

”

Click/Scan QR to read the rest of Chapter 16, 'Concrete to Abstract: The Art of Teaching Numeracy'



ENDORSEMENTS

TEACHERS & OFFICIALS

“ I started with 22 children, many of whom had some challenges with reading and mathematics. 19 children can now read fluently, and the rest are in process. I feel delighted with everything I have been observing in my children.

Zenaida

Grade 3 Teacher, Sachachorro School, Iquitos, Peru

”

“ In 4th grade, we had so many kids who couldn't write or read. My own daughter's reading ability is now getting better each day, her scores improved significantly. Our school is excited, and our growth is accelerating. Everybody is praising the curriculum.

Rickie Dhillon

Chief Business Official, Kepler Neighborhood School, California, USA

”

“ The results are highly positive and exciting. Children's attendance has also improved.

Rahul Mishra

Basic Shiksha Adhikari, Shamli, Uttar Pradesh, India

”

“ This is a very easy technique. I think this technique should be used everywhere throughout India.

Alla Rakha

Principal, PS Malakpur Shamli, Uttar Pradesh, India

”



“ This is an excellent method. When children use concrete objects, the learning sticks in their brain. Children who were being bored by the traditional method are enjoying learning with ALFA.

Veena Gupta

Principal, PS Ramshehar 1 Solan, Himachal Pradesh, India

”

“ We got to learn a lot new in today's training: how to build a solid foundation for children's learning. There was a great exchange of ideas between the trainers and participants.

Arif Hassan

Participant in Massive Open Online Training, Lucknow, Uttar Pradesh, India

”

TESTIMONIES BY EXPERTS

Former Minister of Education, Guinea Ms Aicha Bah Diallo

“

Dr. Sunita Gandhi's innovative ALfA method allows learners of all ages to quickly master essential foundational skills. It surpasses traditional methods, promoting holistic learning. Learning happens in pairs, embedding critical 21st-century skills into the curriculum. ”



Click or Scan the **QR code** to
**hear other prominent
policymakers'
views on ALfA**



Click or Scan the
QR code to
**hear Mary
McCoolberry's talk**

Reading & Dyslexia Expert, USA Mary McCoolberry

“

Dr Sunita Gandhi's dream is brilliant, huge, ambitious and daring. What I love about the ALfA kits is that they accelerate the process for readers across the world. I have used them with students I teach. The toolkits meet the learners at their instructional level. I love the fact that kids are building on their background knowledge. ”

Founder, World Climate School, Norway Inger Mette Stenseth

“

Dr Gandhi's educational pedagogy, ALfA: Accelerating Learning for All, is truly transformative. It is inclusive, scientifically rigorous, and capable of scaling to reach learners of any age. During my visits to India, I witnessed firsthand the profound impact of ALfA in government schools, slums, and among out-of-school children and illiterate adults. ”



Click or Scan the **QR code**
to read **Inger Mette
Stenseth's letter**



Click or Scan the **QR
code** to watch **Dr
Ahmad announce
the launch of ALfA in
Maldives**

Former Minister of Education, Maldives Dr Abdulla Rasheed Ahmad

“

Despite all the efforts which many countries are making, still a large proportion of students are suffering from low literacy. Why? It's because we all are repeatedly doing the same thing in the same way. Thank you Dr Sunita for coming up with a totally new strategy for teaching literacy and numeracy. Rather than taking years, students can learn literacy in just three months. ”

A PATHWAY TO SCALE

Dignity Education is working with government and NGO partners to pilot and scale up the Accelerating Learning for All program. Our framework, the Rapid Results Initiative (RRI) progresses through three stages—Explore, Expand, Embed.



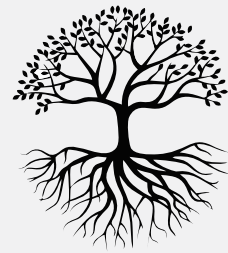
Stage 1 Explore

Research implementation in a few schools, randomly allocated to treatment and control.



Stage 2 Expand

Scale the implementation to more schools covering one or more low-performing districts.



Stage 3 Embed

Integrate system-wide as a supplement or in the government textbooks & teacher training systems.

Stage 1 | Explore | Research Implementation

Objective & scope : Conduct pilots in a few schools to establish proof of concept that FLN goals can be achieved quickly using ALfA pedagogy. We suggest 4 treatment schools + 4 control schools.

Roles & Cost-sharing: DEVI Sansthan is offering free online training, learning materials, and assessments. The implementation partner should arrange appropriate monitoring and third-party assessments.

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

Implementation Options

Standard Model: The ALfA program consists of 45 working days, with one hour dedicated to literacy and one hour to numeracy each day.

Intensive Model: 30 working days with full-day FLN focus using ALfA in a mission mode, without other subjects.



1 School Selection

Random selection and assignment of treatment and control schools.



2 Baseline Assessments

Third-party-validated tests to measure initial skill levels.



3 Teacher Training

Online or in-person, covering ALfA pedagogy and classroom triggers.



4 Implementation

Structured daily lessons in foundational literacy and numeracy.



5 Endline Assessments

Measure progress using post-tests and real-time analytics via Pragati app.



6 Model Schools

Establish ALfA Model Schools as hubs for observation and inspiration.

Stage 2 | Expand | Scaling the Implementation

- Objective & Scope** Broaden the initiative to multiple clusters or districts (hundreds of schools).
- Cost-sharing** DEVI Sansthan is offering free online training and soft copies of learning materials and assessments. The implementation partner should arrange bulk printing, and if venue/travel if physical training is required.
- Research Design** Comparison of block- or district- level data with another geography not implementing ALfA.

Activities

1. **Cluster Expansion:** Scale pilots to include underperforming regions.
2. **Monitoring and Feedback:** Use midline and endline assessments to collect more feedback and 3rd party evidence.
3. **Capacity Building:** Train local educators and supervisors to sustain the program.
4. **Regional Demonstrations:** Showcase model schools to policymakers and other stakeholders.



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for a more detailed
roadmap for
RRI implementation

Stage 3 | Embed | Systemic Integration

- Objective & Scope** Embed ALfA pedagogy for systemic integration and long-term transformation across a whole region or state (thousands of schools).
- Cost-sharing** DEVI Sansthan will continue offering free knowledge partnership, with the implementation partner arranging bulk printing. The program can be roughly cost-neutral as some pages may be removed from the existing curriculum to avoid duplicacy.
- Research Design** State- or national- level test results.

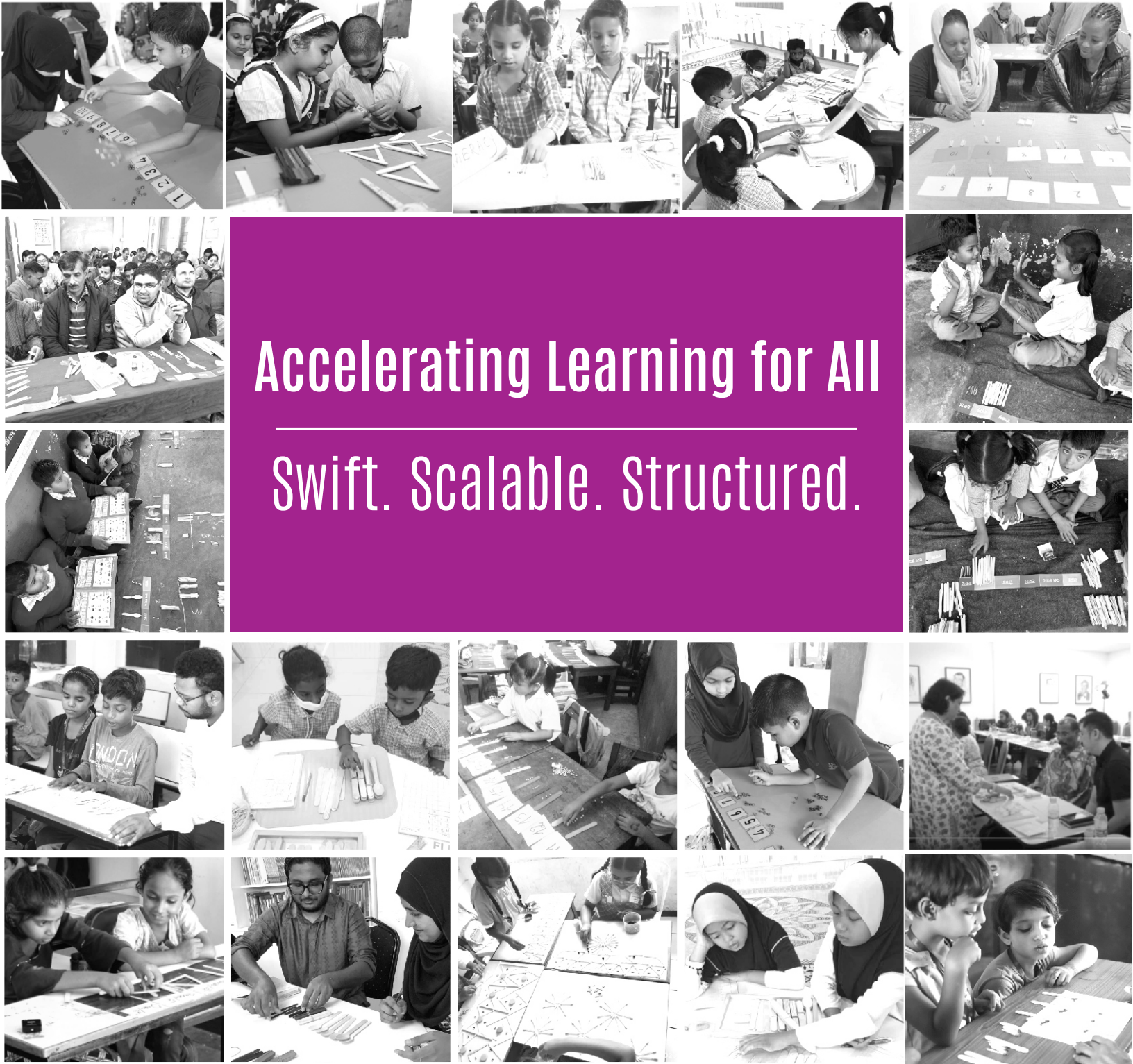
Activities

1. **Curriculum Integration:** Embed ALfA into national textbooks and teacher guides.
2. **Teacher Development:** Develop systemic training programs emphasizing paired learning, critical thinking, and inclusion.
3. **Sustainability Mechanisms:** Build local capacity and monitoring systems to ensure self-reliance.



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