

FAST-TRACK to

15 Day Literacy Camp IntensiveA Replicable Experiment



A RADICAL EXPERIMENT

An invitation to replicate this groundbreaking and novel discovery

It was this daunting question which set me out on over a decade of research and field work in slums, villages and schools across India. Our team has developed, revised and honed a set of materials and methodology, Accelerating Learning for All (ALfA), which has shown remarkable results in government schools. Using the power of paired learning and a known-to-unknown approach that builds from students' existing knowledge, children have mastered foundational skills of literacy and numeracy in as little as 45 days.

To test the limits of human potential using this disruptive pedagogy, we conducted a more radical experiment, enrolling about 80 children from three local slums in a 2-week literacy and numeracy camp. The questions we sought to answer were: How far can we take the children in their reading, writing and arithmetic skills in just 15-days focused effort? Have we unintentionally stunted children's intellectual development by our education systems?

In just 12 days, we witnessed the remarkable accomplishments of children engaged in peer-learning and self-discovery education. This empowering approach not only granted them agency but also served as a catalyst for their cognitive development. Envision the immense possibilities that await if we embed this pedagogy into our year-round education system.

Children as young as 7, starting with very little base of knowledge, could learn to recognize and represent numbers up to 100,000. Those 8 year olds who earlier could not add, learned how to divide 3-digit numbers. Many struggling with reading were reading the tough language of newspapers by the end of the fortnight.

This report describes the process and outcomes of this literacy intensive, from training to testing and logistics to learning materials. We invite educationists and researchers around the world to replicate this 2-week experiment, and see for yourselves the tremendous learning gain that ALFA unlocks.

With eager hope,

Sunita Gandhi

Founder & CEO, DEVI Sansthan
Dignity Education Vision International
Former Economist, The World Bank, USA
PhD (Physics), Cambridge University, UK
Chief Advisor, Academics, City Montessori School, Lucknow
(World's largest school)



FAST-TRACK RESEARCH CAMP

SURPRISING RESULTS

PURPOSE

Though we had reached the ultimate, or so we thought, an unheard of and hardly believable 45-Day FLN, we wanted to test the limits even more. The 45-Day FLN was based on the idea that teachers will spend one period a day for literacy and one period a day for numeracy over 45 working days.

We asked ourselves, "What if we gave children a concentrated 15 day FLN instead? Would the children learn so much more of FLN each day? Would we be able to sustain their interest? Would there be any real outcomes from such a short number of days? Will they retain this learning?

We were pleasantly surprised and we hope you will too.

Yes, we can replicate this experience anywhere.

Children can much more than education systems allowed us to believe.

They can co-create their own learning with minimal support.

By speeding up learning, we generate tremendous joy of discovery and build confidence and the skill to learn by self.

We can make the world foundationally literate much sooner than we ever thought possible.

We can change the way we always taught and learn new lessons from this experience and research.

We invite you to read on and then join hands with us to replicate the super FAST-TRACK 15-Day intensive or the FAST-TRACK 45-Day FLN experience in your own contexts.



FAST-TRACK FLN

ALfA: ACCELERATING LEARNING FOR ALL 10X Faster, 5+4 Cs, Low-to-no-carbon, Low-to-no-cost

- 1. DISRUPTIVE PEDAGOGY: Children learn exclusively in pairs using thin visual booklets that engage children in a self-discovery cognitive process to scaffolds learning by themselves from known to unknown. No letters first or letter-sounds association is required. This saves a year. Instead, the children decode the first sounds, then blend two or more sounds to make words from the beginning. In the first ten pages, children read, on their own, some 1000 words. From just half page numeracy modules, they learn multiple concepts on their own.
- 2. SPEED: Children learn FLN skillsin just 45 school days compared with 3+ years.
- 3. **CLIMATE CHANGE**: ALfA makes low-to-no carbon footprint with its thin booklets and ed-tech solutions. Children carry out twice the written work. No need for workbooks.
- 4. **PROCESS-LED**: Paired learning allows children to develop the 5C skills of academic competencies along with collaboration, communication, critical thinking, and creativity. The process promotes 4 attitudes and values of character, citizenship, climate consciousness and connectedness (social-emotional-mental well-being).

ALfA Toolkits

In 30+ languages

1.	Arabic	9. Serbian	17. Shona	25.Marathi
2.	Bangladeshi	10. Spanish	18. Assamese	26.Mizo
3.	Dhivehi*	11. Swahili	19. Bengali	27. Odia
4.	Dutch	12. Somalian*	20.Gujarati	28.Punjabi
5.	English	13. Twi (Akan Kasa)	21. Hindi	29.Tamil
6.	Filipino	14. Yoruba	22. Kannada	30.Telugu
7.	French	15. Portuguese*	23.Konkani*	31. Urdu
8.	Nepalese	16. Persian*	24.Maithili	* in process







SUPPORTERS OF ALFA



Rajnath SinghDefense Minister
Government of India

"Dr. Sunita Gandhi's 30 hour literacy and numeracy model is highly innovative, and highly scalable, that can benefit school children, out of school children and illiterate adults"



Yogi Aditya NathChief Minister,
Uttar Pradesh

"I am delighted that DEVI Sansthan is implementing its project in slums of Lucknow to enable foundational literacy and numeracy through the innovative Global Dream toolkit."



Alok Ranjan

Former Chief Secretary, Government of Uttar Pradesh

"I have been very impressed with the toolkit developed by Dr. Sunita Gandhi, which takes less time to make a person literate, and a less educated person can also become a literacy volunteer."



Dinesh SharmaDeputy Chief Minister,
Uttar Pradesh

"The 'Each One Teach At least One' campaign involving school children of 150 Lucknow schools, helped make an estimated 2 lakh people literate. I congratulate Dr. Sunita Gandhi."



Anil Swarup

Former Education
Secretary
Government of India

"Dr Sunita Gandhi has developed groundbreaking tools that have the potential to solve India's greatest education problem — Foundational Literacy and Numeracy (FLN)."







scan the <u>OR code</u> to see a video of Indian Defence Minister **Rajnath Singh**discuss the program.



ALfA has been endorsed by many international experts. Scan the **QR code** to watch.

HARVARD ALFA CASE STUDY

EVIDENCE FROM

Harvard Graduate School of Education, USA

Rebuilding Resilient Education Systems After the COVID-19 Pandemic

by Prof. Fernando Reimers et al, Harvard Graduate School of Education (HGSE)

Released: March 2023

Available on **Amazon**

Chapter 8

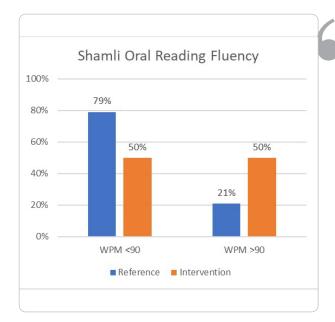
Policy Pathways for Improving Foundational Literacy and Numeracy in Uttar Pradesh, India



Chapters 8 and 10 of a March 2023 book by Prof. Fernando Reimers of HGSE "Rebuilding Resilient Education Systems After the COVID-19 Pandemic" document the ALfA program and its results from a Randomized Control Trial conducted in the Shamli district of Uttar Pradesh, that demonstrate a significant effect size of 0.23 for Grade 3 and 0.89 for Grade 5.

In 2022, DEVI Sansthan, at invitation of the Secretary, MOE, India, started implementing ALfA in the Low Performing Districts (LPDs) of Shamli in Uttar Pradesh and Sambalpur in Odisha. The project's success led to its expansion from one district to 15 districts of UP, and adoption by Maldives at the nationwide level. Several other governments have expressed interest in the program. See evidence and endorsements on www.dignityeducation.org/links.

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.



Students in the intervention groups had much higher ORF [oral reading fluency] levels than those in the reference group. For Grades 4-5, 50% of the intervention group students were able to read the passage at >90 words per minute (WPM) compared to 20% of reference group students.

Accelerated Learning for All (ALfA), helps children quickly gain FLN competencies. The pedagogical approach works as follows: students start with known words in the form of pictures, identify the sounds, and work backward to the letters.





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 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.

CAMP AT A GLANCE

Discussion with Key Stakeholders

We took permission from Lucknow's BSA and the relevant BEO to run the camp in a government school, PS Jawahar Nagar, during the summer holidays.



Surveying and Mobilising

There are several slums located around PS Jawahar Nagar: Mumfuli Mandi, Kabad Mandi, Nai Basti. The DEVI team surveyed these slums and mobilised children, encouraging them to come to the camp.



Upgrading School Facilities

The school infrastructure was in a poor condition. We cleaned up the rubbish in and around the school, erected a temporary boundary wall, and gave the classrooms a fresh coat of paint.



4 Enrolment & Baseline Testing

We did a one-on-one reading test with children, and took their basic demographic details. We allocated those who could already read Hindi to Class D (where they would learn English and more advanced maths), and divided the remaining children by age: (Class A: 5-7 year olds; Class B: 8-10 year olds; Class C: 11+).



5 Inauguration

We invited dignitaries and the press to the campaign launch on 1 June. Children were hugely excited to be videotaped and appear on the news.



6 Classes

Children worked in pairs, using the ALfA booklets and hands-on learning materials to swiftly grasp literacy and numeracy concepts.



Holistic Education

As well as literacy and numeracy, children were given art and music classes. For many of them, this was the first time in their lives they had had this opportunity.



8 Parent Survey

DEVI staff visited the children's families to conduct an opinion poll on their experiences of the camp, and research the factors underlying children's educational attendance.



9 Endline Testing

Children were tested using a multiple-choice assessment tool based on the NAS and NIPUN competencies.



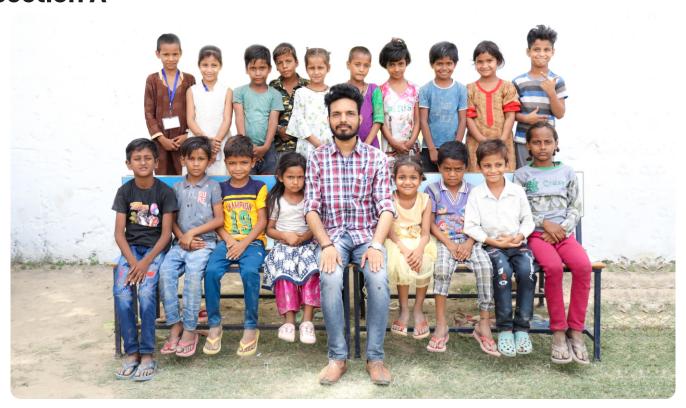
Olosing Ceremony

Children put on a musical performance to show their parents and guests. They also sat in pairs to demonstrate their new skills as parents visited the different classes.



MEET THE LEARNERS

Section A



Section B



Section C



Section D



A DAY IN THE LIFE OF THE CAMP



7.00 am

DEVI staff reach the nearby slums to mobilize children. Vans go to pick them up.



Children arrive at school. Attendance, morning prayers





8.45 am

Exercise, random pairing



Literacy class





9.45 am

Numeracy class



Fruit break, energizer





10.45 am Literacy class

11.30 am Numeracy class





12.15 pm Art class

12.30 pm Music class





12.45 pm Storytelling

1.00 pm

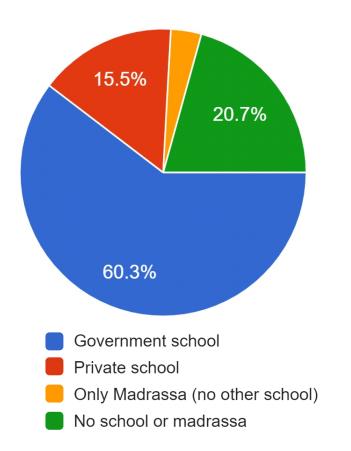


STARTING POINT ANALYSIS

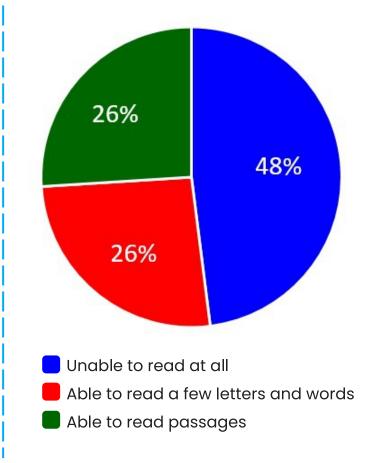
- Camp participants (most of them 6 to 8 years of age) were drawn from three nearby slums of Lucknow, Uttar
 Pradesh: Kabad Mandi, Mumfuli Mandi and Janta Nagri
- Nearly a quarter of camp participants do not attend any school
- Many of those enrolled attend school intermittently
- Only 26% could read a small passage at Grade 2 level, 74% could either not recognize letters, or read just a few letters or words



Do your children attend school normally? (parent survey)



Reading baseline test scores (one on one test)



ALIA PAIRED LEARNING

TEACHERS DEMONSTRATE IN PAIR

Each module has prompts instructing how to do the activity. Children will need you to read these out (at least at early stages, before they can read). You can then demonstrate the activity along with another child.

STUDENTS DEMONSTRATE FROM THE FRONT IN PAIR

Next call a pair to the front to demonstrate – one child asking questions and the other responding; then swapping roles.









THE WHOLE CLASS LEARNS ON THEIR OWN IN PAIRS

Have everyone work through the same question in their own pairs. This helps them become confident in the process-repeating what they've already seen done. Monitor the class to see how each pair is doing.

STUDENTS QUIZ EACH OTHER BY MAKING QUESTIONS

Children pose many new questions for each other. The process of making new questions for each other, beyond what is given in the book, gives children a chance to exercise their creativity, and excites them as active participants.

ALfA & 9C SKILLS

ALfA develops the 9C skills of the twenty-first century. These skills cannot be taught from a textbook, but only learnt through practical experience. For instance:

Competencies foundational literacy and numeracy are learnt swiftly through ALfA

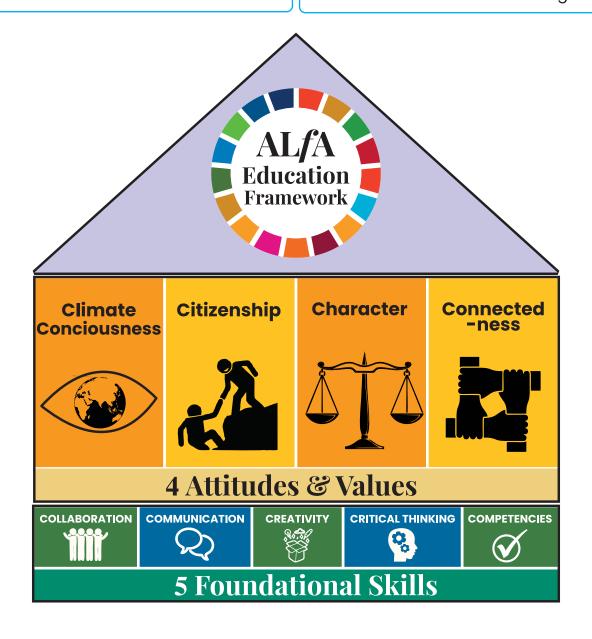
By working with many different children over the course of a few weeks, students develop their **citizenship and character**.

Children develop their **creativity and critical thinking** through making questions for each other.

Climate **consciousness** is developed through role plays and short stories.

Children develop their **communication** and **collaboration** skills by working in pairs.

Connectedness with each other, which is key to broader outcomes such as social, emotional and mental wellbeing.



Endline

- At the conclusion of the camp, children completed two forms of assessment:
- An online test on the Literacy Now App, consisting of various drag-and-drop games.
- A multiple-choice literacy and numeracy test, based on the NAS and NIPUN goals. Section A was given the Grade 1 test, Section B the Grade 2 test, and so on.

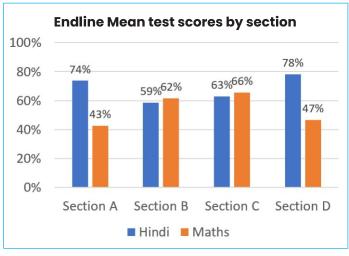


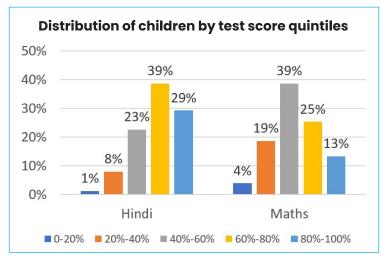
A volunteer conducts the Literacy Now App test



Sample questions from the Grade 1 test paper

- After just two weeks of learning, the overall average test score was around 60%, a remarkable achievement for children who earlier could barely read or do basic operations.
- Hindi scores were somewhat higher than maths.
- Only 3% of children scored less than 20%.





SURPRISING RESULTS

78 1%

On the 13th day, after 12 days of classes, we took a post-test of 75 learners that were present. The results were quite startling overall. Grade 1 children got 81.4% in Hindi but did not fare as well in Numeracy at 43.1%. Language skill developed sooner for most children. Regardless, a significant number of children improved tremendously in numeracy as can be seen in the data interval 80-100%. The grade-wise results were split up into marks by intervals 0-20%, 20-40%, etc., and an overall grade-wise averages for each of Hindi and Numeracy was taken.

Grade 1	Literacy	18
Grade 1	Numeracy	19
Grade 2	Literacy	22
Grade Z	Numeracy	22
Grade 3	Literacy	17
Grade 3	Numeracy	16
Grade 4	Literacy	18
Grade 4	Numeracy	18
Overall	Literacy	75
Overall	Numeracy	75



Average % marks (in each interval)								
Grade	Subject	0-20	20-40	40-60	60-80	80-100	0-100	
Grade 1	Hindi	-	-	54.76	78.57	97.86	81.35	
Grade	Mathematics	9.09	29.09	49.35	68.18	81.82	43.06	
Grade 2	Hindi	-	35.00	50.83	71.21	83.33	58.90	
Grade 2	Mathematics	-	20.69	54.14	65.09	94.25	62.07	
Grade 3	Hindi	16.67	25.00	46.88	72.92	86.11	62.99	
Grade 3	Mathematics	-	26.44	55.17	70.69	87.59	65.73	
Grade 4	Hindi	-	-	54.41	72.43	89.71	78.10	
Grade 4	Mathematics	-	34.22	46.89	67.41	-	46.79	

Overall Averages by Grade

0.0% 10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0%

Grade-wise Performance in Numeracy and Literacy in Fast-Track Pilot, 16 June 2023

Numeracy

Numera

Numeracy

Interval Wise Marks



Sample Student Report by Competency

1: Maths Section A				Average 71.7 %			%	QNA: Question Not Attempted		
Band	Q#	Max Marks	Av.	Descriptor	1000	60,00	a do	OK4	GREEN & BLUE: Re-teach concepts to the students as listed. ORANGE: Reteach the entire class.	Next
GREEN	1	1	100.0	संख्या प्रणाली वस्तुओं की गिनती और 10 तक संख्याओं में सह-सम्बंध स्थापित करना।	18	0	0	0		0
GREEN	3	1	100.0	संख्या प्रणाली वस्तुओं की संख्या के संदर्भ में समूहों की तुलना करना और अधिक/कम आदि जैसे शब्दों का उपयोग करना।	18	0	0	0		0
BLUE	9	1	88.9	जोड़ दैनिक जीवन स्थितियों में 20 तक संख्याओं के जोड़।	16	0	2	0	Farheen Zainab	0
BLUE	11	1	88.9	माप तौल गैर मानक इकाइयों का प्रयोग।	16	0	2	0	Pratham Sultan	Ŏ
BLUE	7	1	88.9	संख्या प्रणाली २० तक की वस्तुओं की गिनती करना।	16	0	2	0	Farheen Khushi	Ŏ
BLUE	8	1	88.9	संख्या प्रणाली 99 तक की संख्याओं को पढ़ना और लिखना।	16	0	2	0	Farheen Saba	0
BLUE	2	1	83.3	संख्या प्रणाली 10 तक के अंकों को पहचानना और रिक्त खानों के लिए उचित संख्या से भरना।	15	0	3	0	Ateek Ilma Ruby	0
BLUE	5	1	66.7	संख्या प्रणाली दी गई संख्याओं को छोटे से बड़े के क्रम में व्यवस्थित करना।	12	0	6	0	Ateek Jishan Saba Faisal Ruby Zainab	0
RANGE	4	1	50.0	पैटर्न दिए गए क्रम को पूरा करते हुए अगली तीन आकृतियां बनाएं।	9	0	9	0		0
RANGE	6	1	22.2	माप तौल दिए गए जानवरों को हल्के से भारी के क्रम में लगाना।	4	0	14	0		0
RANGE	10	1	11.1	ज्यामिति 3D आकृतियों के भौतिक गुणों का अवलोकन जैसे- कोनों और किनारों की संख्या।	2	0	16	0		0

Sample Teacher Report by Competency

Overall performance for Grade 4 in Section A (the easier section) was 71.7%. In Section B of the paper, which is one grade higher (not shown above), the average performance of the same class was 58.6%.



LEARNING OUTCOMES

NIPUN Grade 3 Goals: Literacy



Can answer at least 3 out of 4 questions after reading an ageappropriate unknown passage.



Reads at least 60 words per minute correctly and with comprehension.

Engages in conversation to ask questions, narrate experiences, listen to others and respond.



Writes short messages for different purposes.



NIPUN Grade 3 Goals: Numeracy



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.



Constructs and uses multiplication and division facts



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

ALFA METHODOLOGY

ALfA is a groundbreaking pedagogy enabling learners to become foundationally literate and numerate in just 45 days. It is based on three key principles.

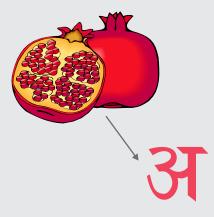
Paired Learning

When students sit in pairs, even the shiest one becomes an active learner. Paired learning is more enjoyable, leads to better learning outcomes.



Known to Unknown

ALfA flips the traditional 'A for Apple' on its head, moving from known (picture) to unknown (letter). Children learn to read words from the very first lesson, without wasting months on the alphabet.

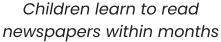


Asking Questions

Students make their own questions and ask each other, which engages them more deeply in the learning process and is crucial to developing the 6C skills.









Clapping and Snapping activity to learn place value

Near Zero Costs Swift & Effective

Available in 30 Languages

Addresses Climate Change Embeds 9C skills in process

HOW ALFA WORKS

ALfA is a joyful process of learning, based on years of psychological and pedagogical research into optimising literacy and numeracy acquisition.

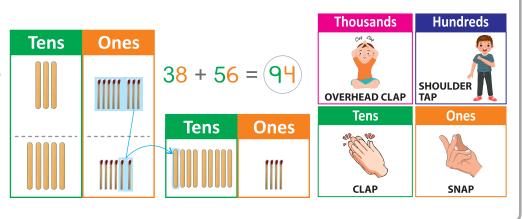
Table 2: Key differences between traditional and ALfA classrooms

Traditional classroom	ALfA classroom				
Transaction of learning is from teacher to student. Rote memorisation.	Transaction of learning is from student to student. Children derive knowledge by working in pairs.				
Children are grouped by skill level. Groups are fixed for a long period of time.	Random pairing which ensures diversity. Pairs are changed frequently, so that children get to mix and work with others of all ability levels and background.				
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.				
Knowledge is abstract, not applied practically.	Children learn through hands-on activities, including the use of concrete objects.				
Bulky, dense textbooks which are designed for the teacher not the student.	Thin booklets with highly visual, attractive modules designed for children to use themselves.				

ALfA Numeracy

Children use concrete objects (e.g. ice-cream sticks and matchsticks) to represent tens and ones and to do sums.

Measurement, shapes, positions, etc. are taught practically.



MOOT

Massive Open Online Training

The first MOOT, free online training to fast-track FLN by empowering teachers to use ALfA—Accelerating Learning for All, attracted participation from 51 Countries and 26 States of India. One three-our session is usually enough to for literacy and numeracy training. After this, the teachers get a certificate of participation (>50% correct) or accomplishment (>80% correct). Participation of teachers has been recorded from the following countries:

AUSTRALIA LAOS PHILIPPINES

BANGLADESH LEBANON QATAR

BELGIUM LORETO REPUBLIC OF KYRGYZSTAN

BHUTAN MALAWI RWANDA

BURUNDI MALDIVES SIERRA LEONE

CANADA MAURITANIA SOUTH AFRICA

CHILE MAURITIUS SOUTH SUDAN

CONGO MEXICO SRI LANKA

(République démocratique du) MOZAMBIQUE ST. LUCIA

EGYPT NAMIBIA TANZANIA

GHANA NEPAL TURKEY

HONDURAS NIGERIA UAE

INDIA NORWAY UGANDA

IRAN OMAN UNITED KINGDOM

ISRAEL PAKISTAN UNITED STATES

JORDAN PALESTINE VIETNAM

KOSOVO 🖾 PERU ZIMBABWE

KSA







AN INVITATION TO REPLICATE 45-DAYS-TO-FLN

DEVI Sansthan is offering governments the opportunity to take part in the 45-DAYS-TO-FLN CHALLENGE at two levels:

- **A. SYSTEM-WIDE:** Governments are encouraged to implement ALfA system-wide in one or more districts or an entire state or country by taking evidence from other implementations. It only take 2 periods a day for 45 days to reach FLN levels.
- **B. PILOT:** Two periods a day (one for literacy and one for numeracy) for 45 school-days at randomly selected ten schools (for treatment group) and another five schools (for control group)

Available in 30 of the world's languages. Additional languages can be added.

To initiate your 45-day FLN Challenge, please contact DEVI Sansthan via phone, WhatsApp on +91 740 840 6000, or Email on info@dignityeducation.org.



INVITATION TO REPLICATE

We invite educationists and researchers around the world to replicate this experiment in their own contexts, to explore the tremendous rates of learning. Here are some video resources which will empower you on your journey.



Compare and Contrast

Explores the key differences between ALfA and a traditional classroom.



ALfA & Sharma

One teacher is skeptical about the ALfA classroom, and discusses it with her counterpart.



Steps of an ALfA Class

Explains how to give demonstrations and normalize the class.



Numeracy Structure

Flicks through the pages of the numeracy book to show how the modules flow.



Numeracy Principles

Shows the key principles: a concrete to abstract approach, children making their own questions.



Numeracy Hands-On

Steps through how to solve example question for each arithmetic operation the ALfA way.



Literacy Structure

Flicks through the pages of the literacy books to show how the modules flow.



ALfA & 9Cs

Explores how ALfA helps children develop the 9C Skills.



The Power of Pairs

A group of teachers discuss how and why they make pairs, along with classroom footage.

IN THE PRESS





Times of India



Click Here



DEVI Sansthan Video



Click Here



Prime TV Video





Education World Article



Click Here



India KK News Video



Click Here



Bundelkhand Bulletin Video

CONTEXT

The Covid pandemic has created a major setback for education systems around the world. An estimated 70% of 10-year-olds in Low-and-Middle Income Countries cannot read a simple text with comprehension. However, this literacy crisis long pre-dates the pandemic. According to the Annual Status of Education Report, over half of Grade 5 students in rural government schools could not read a Grade 2 text (Table 1).

Table 1: Annual Status of Education Report (Rural), 2018 and 2022

	2017 Lo	anguage	2021	2017	Maths	2021
	(% who can re	ead Stando	ard 2 text)	(% who can d	o 2-digi	t substraction)
Grade 3	27%		21%	28%		26%
Grade 5	51%	51% 43		52%		50%
Grade 8	73%		70%	66%		68%

Recognising both the importance of literacy and the huge gaps in the current education system, the National Education Policy makes attaining universal literacy in primary school a topmost priority. The government's flagship program, National Initiative for Proficiency in reading with Understanding and Numeracy, sets the ambitious target of all children in Grade 3 and above having full FLN skills by 2026–27. The government is also partnering with numerous educational NGOs towards this mission of improving the quality of foundational education by training teachers and providing learning materials.





















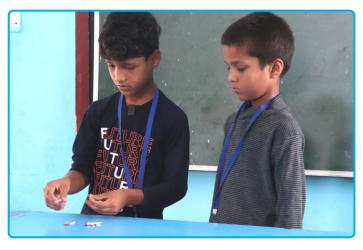
























DEVI Sansthan (Dignity Education Vision International) is a small NGO with a big vision: to help India and the world achieve universal Foundational Literacy and Numeracy (FLN). DEVI is pioneering transformative pedagogies, empowering teachers, and leveraging policy change to enable rapid gains towards literacy for all.