

FAST-TRACK FUNDAMENTAL STATEMENT OF THE PROPERTY OF THE PROPE

IN LOW-PERFORMING DISTRICTS

Shamli, Uttar Pradesh & Sambalpur, Odisha









FROM THE DIRECTOR

Picture a child's education as a garden.

The skills of reading, writing, and arithmetic are the seeds that, when nurtured, blossom into a lush garden of knowledge, creativity, and lifelong learning.

Sadly, many children miss out on those crucial seeds, leaving their garden bare. The National Education Policy recognizes that tens of millions of children in primary school have not yet mastered these foundational skills. These problems are particularly acute in some parts of the country - known as Low Performing Districts (LPDs) - where a majority of children are well behind grade level.

The Accelerating Learning for All program enables children to learn these foundational skills in just 45 instructional days. It uses the power of paired learning and a known to unknown approach to put children on a fast-track to FLN.

From a modest beginning with 10 schools in Shamli district, the ALfA program's success led it to expand to a further 200 schools of the same district, as well as 10 schools in Sambalpur, Odisha.

With eager hope,

Sunita Gandhi

Founder & CEO, DEVI Sansthan
Dignity Education Vision International

Chief Advisor, Academics, City Montessori School (World's largest school)

Former Economist, The World Bank, USA PhD (Physics), Cambridge University, UK

As we journey towards this goal of literacy for all, we are grateful for government leadership, particularly:

IAS Sanjay Kumar Secretary, Ministry for

Education

IAS Anita Karwal Former Secretary (MoE)

IAS J.P. Pandey Director, Education

(MoE)

IAS V.K. Anand Director General of

School Education, UP

IAS Aswathy S. Commissioner-Cum-

Secretary, School and

Mass Education
Department, Odisha

IAS Ananya Das District Magistrate,

Sambalpur

IAS Ravindra Singh District Magistrate,

Shamli

Jasjeet Kaur District Magistrate,

Shamli (former)

We feel inspired by some remarkable educationists and officials we've worked with - teachers, principals, officers. We also owe a debt of gratitude for the support of different NGO partners, such as M3M Foundation.

ALfA is a pedagogy designed by DEVI Sansthan, but it is a collective mission of all of us. When government, NGOs and communities work together, we can achieve great things.

Scan the QR to watch

Dr Sunita Gandhi discuss the **ALfA Program**



SUPPORTERS OF ALFA



Rajnath Singh
Defense 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."



G B Patnaik

Former Chairman, India Literacy Board

"Global Dream Model can make it possible to scale up literacy across the state at zero to near zero additional costs per learner."



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>QR 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.

EXECUTIVE SUMMARY

This report takes stock of Accelerating Learning for All (ALfA) implementation in government primary schools of two Low Performing Districts – Shamli, UP and Sambalpur, Odisha. It draws lessons from the program's successes and challenges to plan scaling-up to more districts in the second half of 2023.

The National Initiative for Proficiency in reading with Understanding and Numeracy (NIPUN Bharat) has the ambitious target of achieving universal literacy among Grade 3 and above students by 2026-27. **Read more about the context on p5.**

The ALfA program is an innovative pedagogy, based on paired learning. Children ask each other questions to learn to recognise letters via picture recognition and blend them together to form words. The ALfA pedagogy is described on p6-7.

ALfA implementation has been designed with a scientific research basis: schools have been randomly allocated to implementation and reference groups. **Explore the research and assessment design on p8-11.**

Implementation in Shamli began in June 2022. **Explore the project timeline and powerful photos from Shamli on p12-13.**

A chapter of a recent book by Harvard Graduate School of Education has focused on the ALfA implementation in Shamli. Check out some powerful quotes on p14-15.

ALfA has brought improvement in learning outcomes. Students in the implementation group had test scores improve by 25 percentage points, compared to 17 percentage points in reference group schools. See the full results on p16-17.

Implementation in Sambalpur began in August 2022. Explore the project timeline and powerful photos from Sambalpur on p18-19.

The baseline test papers were scanned using Pragati App, a customized software which provides instant, detailed feedback. Explore the baseline assessment results from Sambalpur on p20-23.

ALfA is powerful not just in teaching foundational literacy and numeracy, but also 21st century skills such as collaboration, critical thinking, citizenship and climate consciousness. **See how on p24-25.**

The ALfA program has garnered academic and media attention. A feature in the Print highlights the achievements of primary students. **Explore the coverage on p26.**

The ALfA program will hopefully be implemented in 11 more districts of Uttar Pradesh in the latter half of 2023. Several other states are also expressing interest. The experiences outlined in this report allow us to further refine the implementation. **Read about next steps on p27.**

INTRODUCTION & 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, half of Grade 5 students in rural government schools could not read a Grade 2 text in 2018 (Table 1). The situation has grown even worse since the Covid pandemic: the figure now stands at just 43%.

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

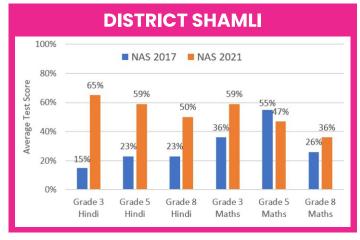
	2018	Language	2022	2018	Maths	2022	
	(% who can	read Stando	ard 2 text)	(% who can do 2-digit substraction)			
Grade 3	27%		21%	28%		26%	
Grade 5	51%		43%	52%		50%	
Grade 8	73%		70%	66%		68%	

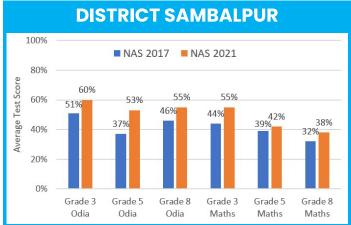
Recognising both the importance of literacy and the huge gaps in the current education system, the National Education Policy makes attaining universal literacy in primary school a topmost priority. The government's flagship program, National Initiative for Proficiency in reading with Understanding and 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 founder, Dr Sunita Gandhi, with Ministry of Education Secretary, Anita Karwal

National Achievement Survey Results, 2017 & 2021





HOW ALFA WORKS

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

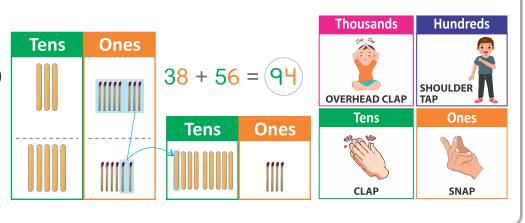
Table 2: Key differences between traditional and ALfA classrooms

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.



ALfA Literacy Children derive the sound from the known picture, and learn to decode letters and blend to form words. What is this picture? What is its first sound? What word do these sounds join to make?

ALFA 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.

RESEARCH DESIGN

ALfA implementation in both districts was conducted as a randomised control trial. Reference schools were not given any training or materials, but baseline and endline testing was conducted there.

School Selection

In the initial batch of 20 schools assigned to DEVI by the Shamli district government, we randomly allocated 10 schools to the implementation and 10 to the reference groups. In the main implementation phase, DEVI Sansthan imposed a minimum bar of 80 students enrolled per school to select a further 270 out of the district's 484 remaining schools. Of these 270 schools, 70 were randomly selected to be in the reference group, the remaining 200 were allocated to the implementation group. A similar process was followed for school selection in Sambalpur. Table 3 below shows the district-wise number of schools and students in the ALFA program.

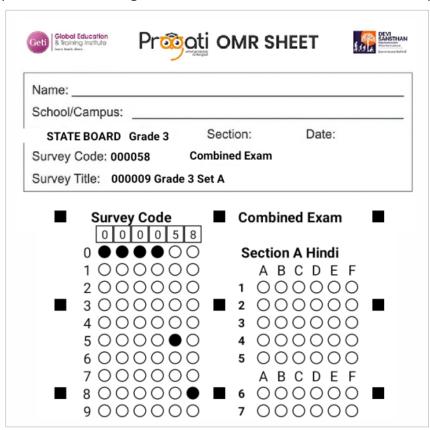
Table 3: Number of Schools and Students in ALfA Implementation

District	Sch	nools		Students			
	Implementation	Reference	Total	Implementation	Reference	Total	
Shamli	210	80	290	45,703	14,087	59,790	
Sambalpur 10		10	20	844	862	1,706	
Total	220	90	310	46,547	14,949	61,496	

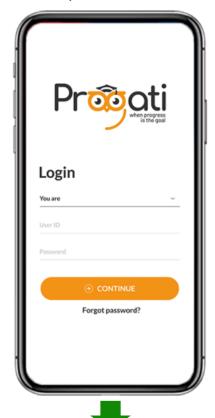


TESTING PROCESS

Baseline testing was conducted in schools of both implementation and reference groups in both districts. Endline testing was conducted in Shamli in March 2023. In Sambalpur it was scheduled for April 2023 but could not be conducted due to some political and religious tensions in the district. It is now planned for July 2023.



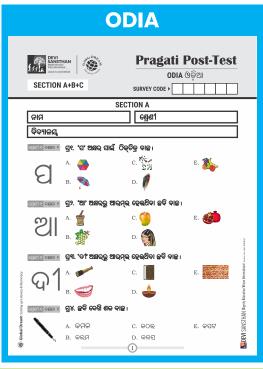
Assessment was conducted by college students, after receiving a training from the DEVI team. The surveyors requested teachers requested to remain outside the classroom during the tests, to minimise the possibility of cheating. The OMR sheets were scanned using the Pragati App, which allows instant data 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.

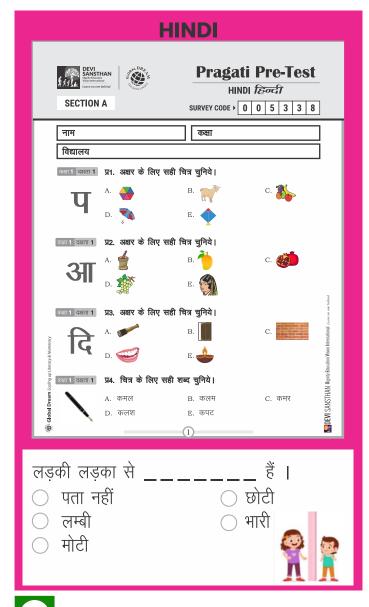


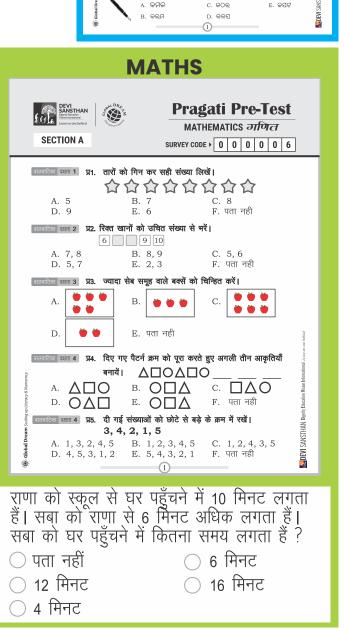


ASSESSMENT

A multiple-choice question paper was designed based on the NIPUN Bharat Competencies and the National Achievement Survey, in consultation with DIET. This paper, consisting of approximately 40 questions, was split into 4 parts to reduce the scope for cheating, reduce the time requirement and still ensure representative coverage of key competencies. These were labelled 'Paper A', 'Paper B', etc. A quarter of children in each class were given Paper A, another quarter Paper B, and so on.

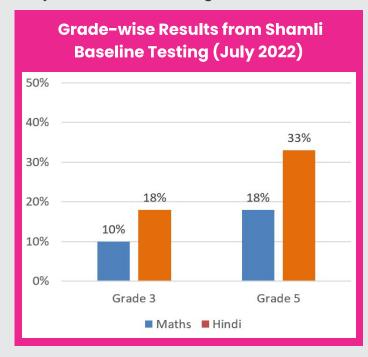


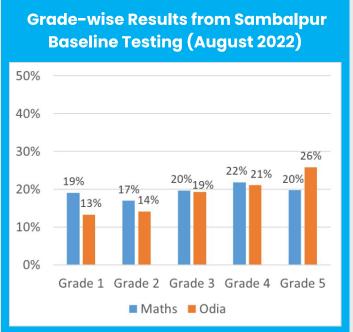




BASELINE RESULTS

The baseline testing indicated a disturbingly low level of learning. In Sambalpur, the overall average test scores ranged from 13% to 26%, depending on the Grade and subject. In Shamli, it ranged from 10% to 33%.







SHAMLI TIMELINE

June

DEVI conducts a one-day training for teachers from 10 schools randomly selected from Shamli's five blocks.



July

Baseline testing in 10 implementation and 10 reference schools of Shamli



September

Refresher training for teachers from 10 implementation schools.



October

MOU signed to scale up Shamli implementation to Grade 3 and Grade 5 in 200 schools, with 70 schools selected as a reference group.



November

Training of teachers from 200 schools in Shamli. Baseline testing in all 270 schools conducted by college students.



March

Endline testing conducted in a random sample of Shamli schools.





PHOTO GALLERY



ALFA CASE STUDY SHAMLI

EVIDENCE FROM Harvard Graduate School of Education, USA

Rebuilding Resilient Education Systems After the COVID-19 Pandemic

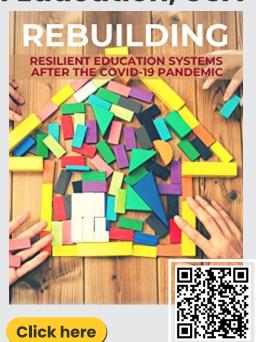
by Prof. Fernando Reimers et al

Released: March 2023

Available on **Amazon**

Chapter 8

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



Chapters 8 documents 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.

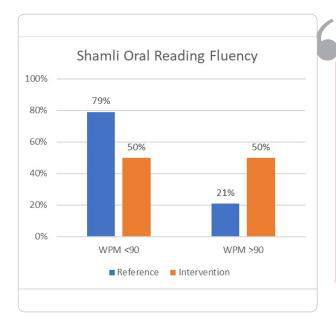
In 2022, DEVI Sansthan, at invitation of the Secretary, MOE, India, started implementing ALfA in the Low Performing Districts (LPDs) of Shamli in Uttar Pradesh and Sambalpur in Odisha. The project's success led to its expansion from one district to 15 districts of UP, and adoption by Maldives at the nationwide level, as discussed in Chapter 10 of this book. Several other governments have expressed interest in the program.

To see more evidence and endorsements

Click here



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.

LEARNING OUTCOMES

The initial comparative analysis of 10 implementation and 10 reference schools in Shamli showed an effect size of 0.51 for Grade 3 and a whopping 0.70 for Grade 5.

Table 4: Results from Shamli Phase 1 (10 schools; July 2022 - March 2023)

	Intervention			Reference			Comparison		
	Baseline	Endline	Difference	Baseline	Endline	Difference	Dif in Dif	Learning rate improvement	Effect Size
Gr 3 Hindi	25	68	43	10	50	40	3	7%	0.11
Gr 3 Maths	11	70	59	9	43	34	24	71%	0.92
Gr 5 Hindi	33	54	21	29	37	8	13	154%	0.53
Gr 5 Maths	18	55	36	16	27	11	26	243%	0.88
Average	22	62	40	16	39	23	17	118%	0.61

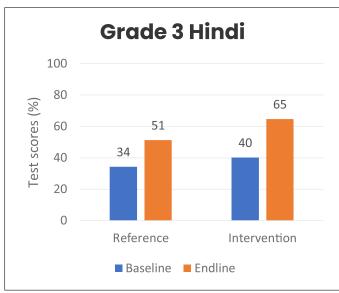
In Phase 2, the larger scale implementation, the effect sizes were not as large as the implementation has been running for only a few months. Despite this, across both Grade 3 and Grade 5, in both Hindi and Maths, intervention group students showed substantially greater test score gains than intervention group schools. ALfA students on average had rates of learning 1.5 times greater than students in non-ALfA schools. The results are shown in Table 6 below and represented graphically.

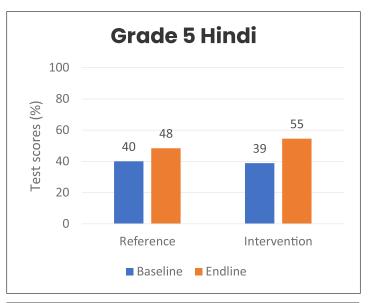
Table 5: Results from Shamli Phase 2 (200 Schools; Nov 2022 - March 2023)

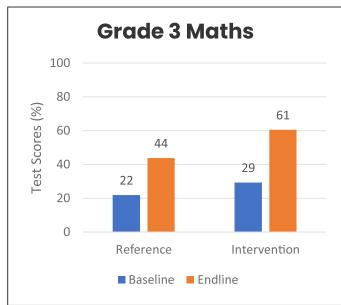
	Intervention			Reference			Comparison		
	Baseline	Endline	Difference	Baseline	Endline	Difference	Dif in Dif	Learning rate improvement	Effect Size
Gr 3 Hindi	40%	65%	25%	34%	51%	17%	8%	44%	0.26
Gr 3 Maths	29%	61%	31%	22%	44%	22%	9%	42%	0.29
Gr 5 Hindi	39%	55%	16%	40%	48%	8%	8%	87%	0.33
Gr 5 Maths	26%	54%	27%	24%	45%	20%	7%	34%	0.24
Average	34%	59%	25%	30%	47%	17%	8%	52%	0.28

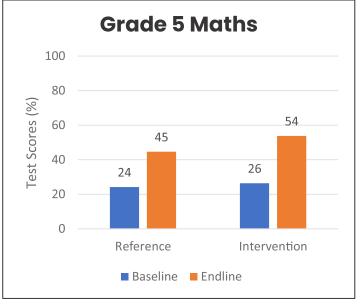
NOTE

Though schools were randomly selected, the treatment group students generally scored better than the control group in the pre-test. This is likely because there was a gap of several weeks between training teachers & giving the ALfA materials, and the testing. It seems that children in implementation group schools made some progress in even these few weeks.









Baseline: Nov 2022; Endline: March 2023



2022

TIMELINE SAMBALPUR

24 June

Initial MOU signed with Sambalpur District Education Officer inviting ALfA implementation in 10 schools (later revised in August 2022).



1 & 2 August

1-Day training for teachers of 10 implementation group schools in Sambalpur district, conducted in 2 batches.



4 & 5 August

Pre-testing of students' Odia and Numeracy levels conducted in 10 implementation and 10 reference schools.



August

Classroom implementation begins, with schools giving one period per day each for literacy and numeracy.



31 October - 1 November

Refresher training for teachers from 10 implementation schools.



2023

July

Endline testing scheduled to be conducted in both implementation and reference schools, by college student volunteers.



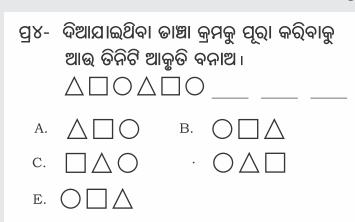
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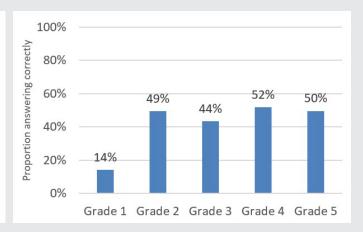


NIPUN COMPETENCIES NUMERACY

The Pragati App allows detailed question-wise analysis, which gives insight into which NIPUN competencies students are most struggling with.

Balvatika, Dakshata 4 Understanding and representing sequences & patterns.





Grade 1 Dakshata 4 Observing the physical properties of 3D shapes such as the number of corners and edges.

ପ୍ର୧୦- ଦିଆଯାଇଥିବା ୩ଡି ଆକୃତିରେ କେତେଟି କଡ଼ ଅଛି, ତାହାର ସଂଖ୍ୟା ଲେଖ

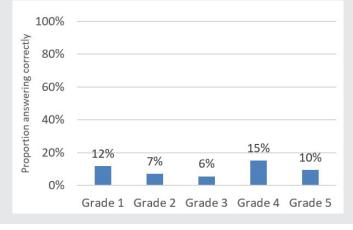
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B. 69

С. Г

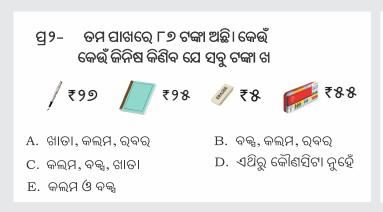
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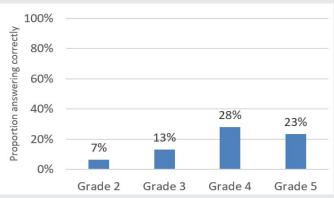
E. 8



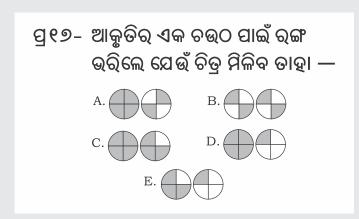


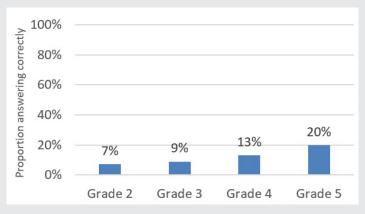
Grade 2 Dakshata 2 Addition and subtraction of numbers up to 99 in daily life.



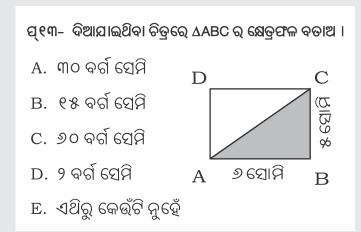


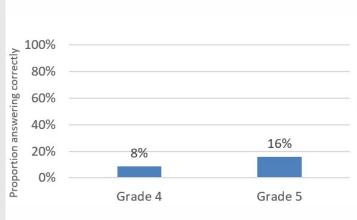
Grade 3 Dakshata 7 Identifying half, a quarter, three-quarters of a whole in a collection of items.





Grade 5 Dakshata 7 Measuring and calculating the area of shapes.



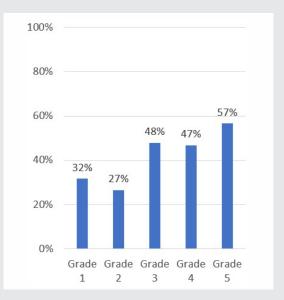


NIPUN COMPETENCIES



Grade 1 Dakshata 1 Recognizing pictures and letters.





Grade 2 Dakshata 4 Reading an unseen passage and answering comprehension questions.



ଶୋଷିଲା କାଉଟିଏ ଥିଲା । ମାଠିଆରେ ଟିକିଏ ପାଣି ଥିଲା । କାଉ ଗୋଡ଼ି ଆଣିଲା ।

ମାଠିଆରେ ପକାଇଲା। ପାଣି ଉପରକୁ ଉଠିଆସିଲା। କାଉ ପାଣି ପିଇ ଉଡ଼ିଗଲା।

ପ୍ର୧୦. କାଉ କ'ଣ ଖୋକୁ ଥିଲା ?

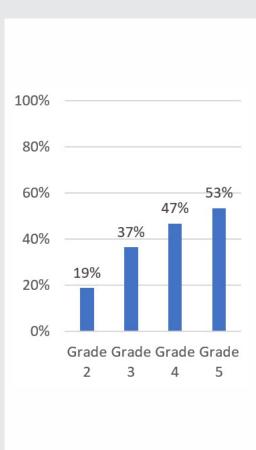
A. ପାଣି

в ଖାଦ୍ୟ

C. ଛାଇ

D. ବସା

E. ଗର

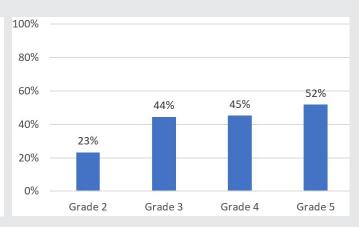


Grade 3 Dakshata 2 Answering questions on the basis of a picture.

ପ୍ର୧- ଏହି ଦୃଶ୍ୟଟି କେଉଁଠିର ?

- A. ନଗର୍ର
- B. ସହର୍ର
- C. ଜମିର
- D. ଗାଆଁର୍
- E. ବଜାରର





Grade 5 Dakshata 1 Answering questions on the basis of a picture.

ତଳ ଛବିଗୁଡ଼ିକୁ ଦେଖି ଦିଆଯାଇଥିବା ପ୍ରଶ୍ମଗୁଡ଼ିକର ଉତ୍ତର ଦିଅ (ପ୍ର.୧ - ୭)

ପ୍ର୧- ଆମେ ସଡ଼କରେ କେଉଁ ପଟେ ଚାଲିବା ଉଚିତ ?

A. ସଡକ ମଝିରେ

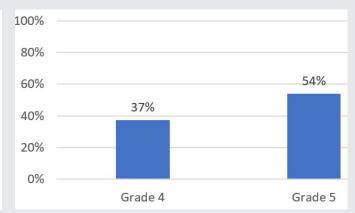
B. ଗାଡ଼ି ପଛେ ପଛେ

C. ସଡ଼କ କଡ଼େ

D. ଯେ କୌଣସି ପଟେ

E. ପାଦଚଲା ରାସ୍ତାରେ







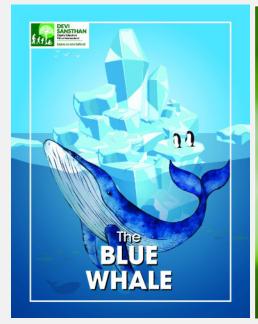
CLIMATE CHANGE & ALFA

Education needs to squarely address environmental issues, from reducing the carbon footprint of learning to explaining climate change in simple language.

How ALfA Addresses Climate Change

- The ALfA booklets are thin: 32+12+28 = 72 pages, that's all for reading, writing and arithmetic.
- Sharing books, halving paper: Children share one set of booklets between two in paired learning.
- eBooks & Apps: No need for printed booklets where a projector or digital screen is available.
- Reusable learning materials: Children gather pebbles, shells, leaves, make their own hands-on materials, or bring everyday objects from home.
- Fostering climate action: ALfA booklets contain short stories and roleplays about climate change and what we can do to address it; inspiring & empowering new readers to become climate activists.







"GLOBAL WARMING CAUSES DRAMATIC INCREASE IN FOREST FIRES"

screamed the newspaper headline. Tara quickly skimmed the article and fell into deep thought. She wished she could do something to help protect forests. Excerpt from a Climate Change short story.



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to explore our collection

ALFA & 4+5C SKILLS + VALUES

ALfA develops the 4C values and 5C skills of the twenty-first century. These skills cannot be taught from a textbook, but only learnt through practical experience.

5C Foundational Skills

Competencies foundational literacy and numeracy are learnt swiftly through ALfA

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

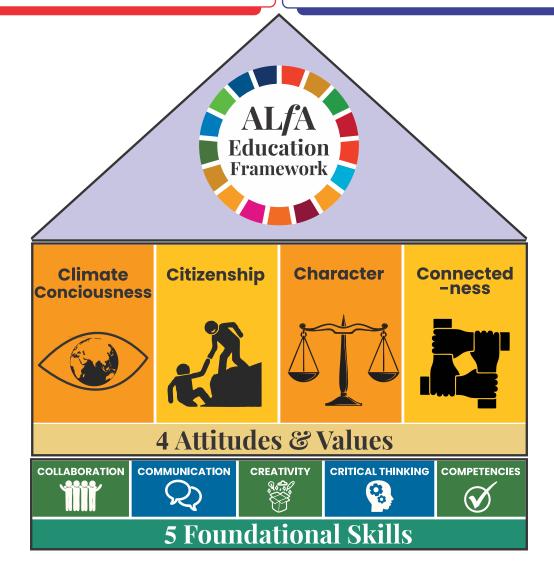
Children develop their **communication** and collaboration skills by working in pairs.

4C Attitudes & Values

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

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

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



EVIDENCE





Click Here



to see a video showcasing ALfA Literacy in Sambalpur.

Click Here



to see a video showcasing ALfA Numeracy in Sambalpur.



Click Here



to view a news report by the Print on ALfA implementation in Shamli.



Click Here

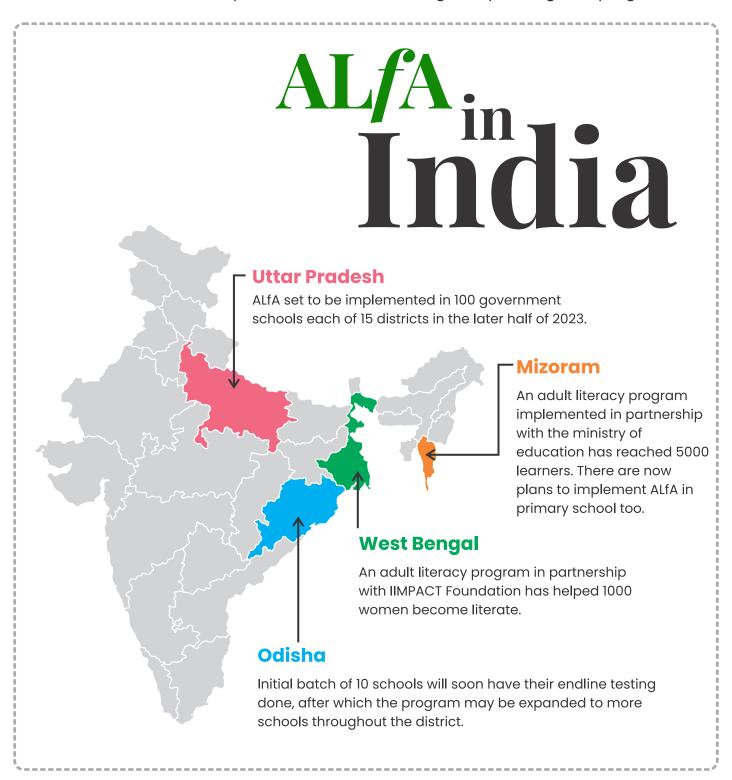


អ្នកទី to watch a video of Shamli students performing above Grade Level after 45 days of ALfA implementation.

How were these video made? WhatsApp groups were set up for different blocks/districts. Teachers were encouraged to post their photos, videos and any questions in the WhatsApp groups, much of the footage in this video was shared by classroom teachers.

NEXT STEPS

In the later half of 2023, ALfA is set to continue in Shamli and Sambalpur. Many other districts and states have expressed interest in starting or expanding ALfA programs.



We look forward to working together with all stakeholders – parents, teachers, principals, educational officials – to ensure rapid progress toward the NIPUN goal of literacy for all. Together, we can!









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.