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#TheIndiaDialog Working Paper Series

Working Paper (WP–2023–004 June, 2023)[1]

Foundational Learning and India's Progress

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[1] The views presented here are those of the authors and do not necessarily represent the position of either Institute for Competitiveness or Stanford University. Working papers are in draft form. This working paper is distributed for purposes of comment and discussion only.

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Foundational Learning and India's Progress

Introduction

Foundational Literacy and Numeracy (FLN) are fundamental building blocks for higher learning outcomes and key life skills among students during later years. FLN is also a key contributor to the economic and social progress of a nation. Yet so many children are not acquiring basic foundational skills at age-appropriate levels. Estimates indicate only a third of 10-year-olds globally can read and understand a simple story.[3] This poor performance has an economic cost: research says approximately 1.19 trillion annually is lost to the global economy[4] and world poverty rates are 12% higher[5] than they would be if more children were equipped with foundational skills. In India, specifically, GDP gains could be up to 7.39 percent with adequate investment in FLN.[6]

Not surprisingly, therefore, foundational literacy has taken center-stage in policy considerations throughout the world and is seen as a fundamental right to strengthen individual agency. Even so, despite multiple policies and programs over several decades, learning poverty[7] still exists, leading to heavy social and economic costs to societies. The World Bank has noted:

> Like monetary poverty, learning poverty demands urgent action. The term "learning poverty" underlines just how important achieving at least a minimum proficiency in reading ability is as a vehicle to a productive, fulfilling life in the modern world. Just as monetary poverty excludes people from economic, social, and political opportunity, so too does a lack of basic reading skills. And the two typically go together: poorer and more disadvantaged children are much more likely to be learning-poor than their better-off peers. This is morally unacceptable, and it also exacts great economic costs on society.[8]

In India, lack of foundational learning skills among children has been evidenced through several assessments and reports over the last decade. The National Education Policy (NEP) took notice of these results and highlighted FLN as priorities for the government. Subsequently, national and state governments have focused attention on the issue and have developed policies and interventions to accelerate quality learning of these skills.

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[3] "Only a third of 10-year-olds globally are estimated to be able to read and understand a simple written story," UNICEF, September 19, 2022, https://www.unicef.org/bulgaria/en/press-releases/unicef-only-third-10-year-olds-globally-are-estimated-be-able-read-and-understand.

[4] "Why Literacy?," World Literacy Foundation, accessed February 21, 2023, https://worldliteracyfoundation.org/why-literacy/.

[5] UNESCO Global Education Monitoring Report Team, *EFA Global monitoring Report; UNESCO; 2013-14; Teaching and Learning, Achieving Quality for All* (UNESCO Publishing, 2014), https://unesdoc.unesco.org/ark:/48223/pf0000225660.

[6] Amit Kapoor et al., *State of Foundational Literacy and Numeracy in India* (Institute for Competitiveness, 2021), https://competitiveness.in/wp-content/uploads/2021/12/Report_on_state_of_foundational_learning_and_numeracy_web_version.pdf.

[7] The World Bank defines 'learning poverty' as "the share of children what cannot read and understand a simple text by age 10." World Bank, *A Learning Revolution to Eradicate Learning Poverty* (World Bank, 2019), https://thedocs.worldbank.org/en/doc/796031571248486139-0090022019/original/LearningPovertybrochureOct17.pdf.

[8] World Bank, *Ending Learning Poverty; What will it take?* (Washington, DC: World Bank, 2019), https://openknowledge.worldbank.org/entities/publication/af5e123e-27e9-5d15-b534-ec22ebe42d96.

Given the challenges in pedagogy of literacy[9], education governance, and scale - in the Indian context - transformational and coordinated efforts are needed by central and state governments to universalize foundational learning by 2026 as envisaged.

Comprehensive Literacy Experience

Literacy is a unique human feat whereby we learn to read text and think deeply about the meaning harbored within it. To read is to 'see' the world through a text. The text becomes the semiotic space, which an able reader deciphers, to both extract and construct meaning. Symbols mapped onto sounds and vice versa, as well as orthographies that can reflect the nuances of spoken expressions. create the body of the text and - almost magically - evoke myriad meanings for a diverse variety of readers.

Reading begins as a perceptual learning function. The brain tries to make sense of and automatize the orthographic units that are seen, making more time to perceive the subtleties of meaning encased in those units.[10] However, looking at reading as just a 'perceptual learning function' where the sole cognitive focus is on visual recognition and automaticity is too limited a view. Meaning making is central to the process of reading and the overarching umbrella under which various sub-processes like oral language development, grapho-phonemic understanding, fluency and vocabulary, must interact for children to absorb and then react to content. Reading comprehension enables children to construct meaning, build knowledge and skills, understand multiple perspectives and develop informed and independent ideas. Ultimately, comprehension allows children to turn ideas into action in their own lives and communities, particularly as they become adolescents and adults.

Therefore, a comprehensive literacy intervention is about ensuring the development of oral language, orthographic expertise and text exposure as parallel strands that can be paced across educational activities scientifically, without causing cognitive overload for children. Acknowledging oral resources that children bring to their classrooms and helping children map the oral utterances onto orthography gradually deepens meaning making and helps reduce the ambiguity the script may pose. Simultaneously, systematic and specific instruction focused on the grapho-phonemic units empower children to grasp written text, even if unfamiliar. Vocabulary enrichment and the ability to read a text fluently with comprehension further adds to the process of promoting thinking while reading. These subskills are strengthened through exposure to a variety of quality literature, where books act both as mirrors (children see their own reality) and windows (children see other realities), thereby leading to the development of an expanded worldview.

There are, however, two dynamics that influence how quickly children can read and comprehend what they are reading, so it is important to acknowledge their importance: (1) early development and pre-literacy skills and (2) ability to balance newly acquired fluency with increased comprehension.

Early Development and Pre-Literacy Skills:

Developmental milestones are critical in language and literacy acquisition. Many factors affect the development of an infant, like emotional environment, temperament, nutrition, and support. Children with intact neurological systems, raised by caring adults, can typically acquire spoken language skills early and exhibit understanding of the various aspects of language development. These children can comprehend simple sentences because they can combine words to express structural and syntactic relationships between them. Gradually, their sentences grow in length and complexity and by the time they encounter formal schooling, they can produce and comprehend a wide range of sentence structures.

[9] Given Room to Read's experience implementing literacy programs across 21 countries, this submission will focus on literacy skills and habit development in particular.

[10] Maryanne Wolf, *How the Reading Brain Solves the Reading War* (Literate Nation, 2013).

As children grow and live through more experiences, they establish new neural connections, and based on those experiences and biological influences, develop their oral language skills. Children who become successful readers tend to exhibit age-appropriate sensory, perceptual, cognitive, and social skills as they progress through the preschool years. Through practice with text, they gradually become adept at establishing connections, remembering facts, and participating in imaginative play. Developing and refining language skills helps them engage with adults and older children. They can use complex sentences and appropriate vocabulary to discuss abstract ideas, and they do not have to rely on immediate context to explain their ideas. Given that there are several interplaying sub-processes shaping how children learn to read, biological underpinnings are important predictors of success in foundational literacy. Therefore, one of the crucial requirements for literacy acquisition is the health of the child and their sensory organs.

From birth, children can distinguish all sounds even though they are still at a stage of producing nonspeech sound and babbling. Their phonological awareness keeps developing throughout the early years. Quite young in life children also grasp the concept of symbols. They understand that some words or logos represent specific things. For example, they recognize logos of their favorite food brand or toy and gradually this understanding extends across contexts and domains. They also understand that grouping numerals, marks and symbols can mean completely different things to what they mean individually. Concepts of literacy are formed by observing and interacting with text and reading. Each interaction enables and increases understanding of the written system and better prepares children for their next developmental phase.

In other words, learning to read and write begins long before children come to school. Every child has different exposure to and experience with literacy in their homes. Children who are frequently read to take up opportunities to read by themselves and engage more in oral discussions. For most children at younger ages, emergent reading routines include engaging with pictures, short texts and then gradually transitioning to conventional reading. During this period, children can also display various kinds of writing systems to express themselves. When young children and infants are surrounded by written materials, this helps develop their writing skills early.

Fluency and Comprehension: Seeking balance in the interest of learning

Fluency and comprehension are not the same but are highly correlated in Indian languages and scripts. Fluency is about the principle of automaticity of subskills like speed, accuracy, use of prosody or expression and, at increased levels, frees the brain's resources for deeper thinking, during the act of reading.[11] The more skills become automatized, the more fluent the reader becomes. Speed is not the goal, but accommodates or helps focus on meaning while reading, which is the desired outcome. In the Indian context, this means that automaticity is required at the *akshara* (i.e., unit of graphemic symbols in the Brahmic script) and text level.

Indian scripts are *akshara*-based scripts, and the sound-symbol relationship is coherent. However, this does not mean that teaching *aksharas* is easy. There are more than 400 consonant and vowel combinations that are required to be decoded almost instantly as one reads. *Aksharas* need to be automatized in several ways. They need to be seen not only in isolation when explicit teaching happens, but they must be seen as constituent forms of words, in larger portions of texts. Also, once several *aksharas* have been taught, they must be used to create words. *Akshara* blending and segmenting is an essential building block of reading. Finally, words must then be placed and read in meaningful sentences and contexts.

While word lengths can be gradually increased in practice reading time, the way words look (exposure) and how they feel (meaning) must be emphasized while fluency increases. Otherwise, word knowledge will not go beyond the speed principle. Deeper reading is all about connections - between text and background knowledge, between parts of text, between text and the world. So, when we are working on literacy, it is essential to focus both on word level automaticity and different levels of meaning making simultaneously. A child's increased ability to

[11] Timothy Rasinski, "Reading fluency instruction: Moving beyond accuracy, automaticity, and prosody," *The Reading Teacher* 59.7 (2006): 704-706.

make meaning is a function of increased fluency over time and, in fact, vice versa: reading fluently (i.e., speed, accuracy and appropriate expression) is a function of increased comprehension over time.

How should knowledge about the importance of pre-literacy skills and the relationship between fluency and comprehension inform the design of reading programs?

For a long time, researchers and implementers of literacy programs have seen greater success when children are equipped with basic pre-literacy skills and are developing reading skills with a strong balance between fluency and comprehension. The following recommendations are prevalent across researchers and implementing organizations like Room to Read[12]:

- A strong preschool component, focusing on children's health, nutrition, fine and gross motor development, communication, and social skills are key to building pre-literacy skills and transitioning children to school.
- Research shows that many hours of distributed practice are necessary to connect neuronal circuits for recognizing words and to link them to comprehension-related areas of the brain. The negative results from neglect of practice are hard to overstate. The recommendation is that a daily strict practice time should be a part of any quality literacy program.
- Decoding fluency, sight word vocabulary, orthographic knowledge and multiple cue efficiency need to be developed simultaneously. Oral language and vocabulary form a strong foundation and need to be integrated into everyday lesson plans.
- Children should learn to read at their decoding level and be given texts slightly higher than their current level, simultaneously, so that their reading abilities are stretched and enriched at the same time. Creating levelled and progressively more complex decodable texts to align with the increase in phonics skills children are being taught and then ensuring daily sustained practice, will help promote automaticity and fluency. Further, over time, students can retain sentences in working memory with increasingly complex patterns and from larger sections of text.
- Reading and writing must go together, and not be seen as sequential skills. While reading improves writing, writing reinforces reading. Independent writing must be used to improve comprehension abilities by integrating it in all stages of text use – before a text is read, while a text is being read and after the text is read.
- Ensure availability and use of a variety of texts, some created specifically with vocabulary or consonant-vowel control and other more creative literature where text is not controlled. A variety of literature is essential to bolster sustained literacy gains and needs to be in place alongside scientifically paced instruction.

Implementing Foundational Literacy Programs in the Indian Context

According to the National Large-Scale Assessment (NLSA), despite high enrollment, nearly 55% of children in India are 'learning poor' today.[13] Due to the recent COVID-19 pandemic, a study in India showed that 92% of students lost at least one specific language ability and 82% lost at least one specific mathematic ability from the

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[12] Kristin Krajewski and Wolfgang Schneider, "Exploring the impact of phonological awareness, visual–spatial working memory, and preschool quantity–number competencies on mathematics achievement in elementary school: Findings from a 3-year longitudinal study," *Journal of Experimental Child Psychology* 103, no. 4 (2009): 516-531.

"Reading Programs that Work," USAID, September 7, 2018, https://www.edu-links.org/learning/reading-programs-work.

Shalom M. Fisch, Rosemarie T. Truglio, and Charlotte F. Cloe, "The impact of Sesame Street on preschool children: A review and synthesis of 30 years' research," *Media Psychology 1*, no. 2 (1999): 165-190.

[13] World Bank, *India Learning Poverty Brief (*World Bank, 2019), https://www.worldbank.org/en/topic/education/brief/ending-learning-poverty.

previous year.[14] The findings from Foundational Learning Study 2022 conducted by National Council of Educational Research and Training (NCERT) show grade 3 boys and girls at an average reading fluency of 35 correct words per minute in Hindi language and only 46% of girls and boys being able to answer comprehension-based questions.[15] In other words, fluency does not always result in comprehension, so program design needs to account for not only decoding text at a certain speed but incorporating strategies to comprehend text as well. The Annual Status of Education Report (ASER) 2022 findings indicate a drastic drop in reading level of children from earlier years. The percentage of children in grade 3 who could read a grade 2 level text has dropped from 27.2% in 2018 to 20.5% in 2022.[16]

There are multiple reasons for the poor statistics on foundational learning in India.

First, the absence of a strong preschool system in the government sector is a major challenge. The government's *anganwadi* (child-care) centers have mostly focused on vaccination and nutrition and do not have the bandwidth to provide quality preschooling. Since most children come from families where parents cannot invest significantly in their children's education, children enter school without adequate pre-literacy or numeracy skills. So, the school system needs to focus on getting these children school ready.

Second, the existing FLN programs fall short of what current research and evidence recommends per the suggestions noted in the previous section. While some programs focus solely on development of automaticity under the assumption that once children learn to 'decode' words they will understand those words on their own, other programs overlook word decoding taking a 'whole language' approach.[17] There are only a handful of interventions, mostly non-governmental, that build in all the sub-processes explained above into their designs with adequately paced instruction and practice time. There is sufficient research on cognitive neuroscience today that suggests that learning to read is about parallel processing. In other words, the reader must decode the text while simultaneously thinking about the text to comprehend and make meaning. Hence, as noted above, and is clear in the Indian context, programs that do not balance fluency and comprehension do not empower children with essential reading and learning skills.

Third, there exists a shortage of dedicated teachers for FLN. The required teacher-student ratio as per the Right to Education Act, 2009 is 1:35. While on paper, this ratio may seem ideal, there are substantial challenges when implementing in schools, especially in the case of low enrolment schools. A school with 50-70 students across five grades (which is very common, especially in rural areas) typically has only two teachers. A school with one or two teachers with multiple grades sitting in the same classroom is a major hindrance to quality teaching, especially for early grade children who require intensive and focused efforts for sustained gains. Invariably in such multigrade situations, the focus of the teacher remains on the higher grades, given the amount of material

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[14] Azim Premji Foundation Research Group, *Loss of Learning during the Pandemic* (Azim Premji University, 2021), https://azimpremjiuniversity.edu.in/publications/2021/report/learning-loss-during-pandemic.

[15] National Council of Educational Research and Training, *Foundational Learning Study 2022* (NCERT, 2022), https://dsel.education.gov.in/sites/default/files/FLS/National/National_Report_on_Benchmarking_for_ORF_and_Numeracy.pdf.

[16] The Annual Status of Education Report (ASER) Centre, *Annual Status of Education Report 2022* (ASER, 2023), www.asercentre.org/survey/p/418.html.

[17] Whole Language teaches children to read by recognizing words as a whole piece of language. This philosophy believes that language should not be broken down into letters and combinations of letters.

"Reading Wars: Phonics vs. Whole Language Instruction," Reading Horizons, accessed February 21, 2023, https://readinghorizons.website/reading-strategies/teaching/phonics-instruction/reading-wars-phonics-vs-whole-language-reading-instruction.

they have to cover, while children in lower grades are overlooked.

Fourth, the limited number of teachers who do focus on FLN have not been prepared with the essential skills to teach FLN effectively. They face both low-quality pre-service training and a lack of in-service support and training. The teachers enter schools without the necessary tools, armed with generic training that does not prepare them for the actual challenges of teaching early grade literacy and numeracy. While administratively there are several checks on teachers, most states do not have a trained cadre of mentors to support and guide teachers through the issues they face. The in-service training courses are also heavily theoretical rather than practical and are based on outdated pedagogies rather than more recently proven approaches.

Fifth, absence of quality reading materials makes a comprehensive literacy experience elusive for most children. The lack of adequate, age-appropriate quality literature for children makes developing a strong habit of reading difficult. In most schools the only reading material available for children is a textbook that has not been designed to guide and inspire. So, children have limited opportunities to practice their literacy skills in the classroom. This challenge is compounded by the fact that most children in government schools come from disadvantaged backgrounds and have very little print at home. While governments have started investing in school libraries recently, the quality and appropriateness of books in these libraries can be greatly improved. Procuring good quality books for children from the open market is still not the norm, and the dearth of good quality children's literature in local languages is an additional barrier to learning.

Finally, multi-linguistic diversity creates unique learning needs. Many children in India receive instruction in languages that they do not understand or are unfamiliar with, which leads to learning gaps in their basic knowledge. Multilingualism has had a long history in India, and, over time, languages mixed and gave birth to new languages, further strengthening and enriching the multilingual fabric of the country. However, as a result, literacy in Indian scripts and languages can become extensively complicated for children, given the multilingual fluidity in Indian classrooms.

Despite these various challenges, there have been several successful interventions in foundational literacy. Most of these interventions have been implemented by non-governmental organizations (NGOs) and implemented on a limited scale. The sheer scale of the Indian education system, with 1.5 million schools and 250 million children, has been a major challenge in mainstreaming good practices and implementing large scale FLN reforms, but it is possible when comprehensive literacy program design carries into strong operations at scale.

Case Study: Scaling-up Early Reading Intervention (SERI) - India

Since 2015, Room to Read India has been implementing the Scaling-up Early Reading Intervention (SERI), supported by the United States Agency for International Development (USAID). It is a large-scale, comprehensive, early-grade reading program aimed at benefiting children in government primary schools in India. Since its start, the project has scaled across four states in India: Chhattisgarh, Madhya Pradesh, Uttarakhand, and Uttar Pradesh, reaching more than 300,000 children in over 2600 primary schools. Last year, the project expanded to Telangana and Rajasthan. The key components under SERI include explicit reading and writing instruction based on comprehensive literacy principles, appropriate reading material that focuses on the development of fluency balanced with comprehension, child friendly school libraries with regular reading activities, dedicated time for reading instruction, teacher training based on proven reading pedagogy as well as monitoring and assessment.

The program was designed to be implemented in three phases, with a gradual release of responsibility to the state government that mirrored the pedagogical approach that was used with teachers and students (i.e., "I do", "We do", "You do"). First, the demonstration ("I do") phase involved Room to Read directly implementing literacy instruction and library establishment in a small number of government primary schools in select districts to demonstrate the impact of the program. Second, in the partnership ("we do") phase, Room to Read supported state governments to expand the model across all government schools in a block (subdistrict) or

district. Finally, the scale-up ("you do") phase involved handing over the model to the state government for replication and scale-up in other parts of the state.

The project has demonstrated substantial reading improvement among early-grade students at scale and is currently working towards institutionalizing the principles and practices within government systems. An evaluation of the demonstration phase of SERI was conducted during 2015– 2017 in Chhattisgarh and Uttarakhand.[18] The sample consisted of 50 program schools and 50 comparison schools, equally distributed between the states. An evaluation of the partnership phase was conducted from 2016 to 2018 in 74 programs and 72 comparison schools, with each group split evenly between the two states. Both evaluations employed quasi-experimental designs. The results were remarkable in that the large gains in literacy scores in the demonstration phase were replicated in the partnership phase, despite the decreased involvement of Room to Read in this second phase. Two-year gains on reading skills made by children in the project group were 1.4 to 2-times greater than comparison school counterparts, with maximum gains observed in the case of oral reading fluency ($p<0.001$).[19]

The initiative not only improved learning levels of children, but it also exposed teachers to proven methods of literacy instruction and provided children with a range of book content that they had never experienced before. Through these project phases, teacher and student motivation improved. One of the biggest successes was the manner in which the state government took ownership of the program, thereby creating the promise of sustainable literacy gains for the future.

The SERI project was selected under the Learning at Scale study led by RTI International and funded by the Bill and Melinda Gates Foundation as one of the eight programs across low- and middle-income countries (LMICs) with demonstrated impact on basic skills at scale and to conduct in-depth investigations of these programs to determine what makes them successful. The study concluded that the practices that led to the gains in reading under SERI included strong instructional practice with high quality materials, provision of instructional support, and system-level support.[20]

India's Progress in Foundational Learning: Linking Policy and Action

With the release of the much-awaited NEP in 2020, the importance of foundational learning was thrust to the forefront of the Indian education system. The NEP explicitly recognizes the learning crisis at the foundational stage stating, "we are currently in a learning crisis: a large proportion of students currently in elementary school - estimated to be over 5 crores in number - have not attained foundational literacy and numeracy, i.e., the ability to read and comprehend basic text and the ability to carry out basic addition and subtraction with Indian numerals."[21]

The direct consequence of children being left behind in foundational literacy is that they can't make meaning out of the text in primary school years. And when more than one-third of children are left behind at the foundational stage, it is unrealistic to expect them to achieve loftier goals. NEP 2020 clearly states that the rest of the policy can only be relevant for students if the "most basic learning requirement (i.e., reading, writing, and

[18] Pinaki Joddar, *Impact Evaluation of the Literacy Program Partnership Approach under Scaling up Early Reading Intervention (SERI) funded by USAID* (2018), https://www.roomtoread.org/media/p3nhkbhi/2018-india-literacy-impact-eval-of-hindi-schools-under-seri-partnership-approach-endline-report.pdf.

[19] See note 16 above.

[20] Jonathon Stern et al., *Learning at Scale: Interim Report* (RTI International, 2021), https://shared.rti.org/content/learning-scale-interim-report.

[21] Ministry of Human Resource Development, *National Education Policy 2020* (Government of India, 2020), 8, https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf.

arithmetic at the foundational level) is first achieved,"[22] so basic quality education needs to be addressed before India can look to equal opportunities for tertiary education, entrepreneurship and employment and all of the economic benefits that such opportunities can afford the nation.

In the year 2021, the Government of India launched the National Initiative for Proficiency in reading with Understanding and Numeracy (NIPUN Bharat) mission articulating several immediate measures and target milestones. The highest priority of the education system is to achieve universal foundational literacy and numeracy in primary school by 2025.[23] The mission has been launched under the *Samagra Shiksha* (SSA) scheme to ensure quality and inclusive education for all. The budget for the mission is provided under *Samagra Shiksha*, and every state is responsible for making action plans for attaining their respective FLN goals in a time-specific manner.

The Ministry of Education policy paper on Early Reading and Writing with Comprehension and Early Mathematics Programme, *Padhe Bharat Bhadhe Bharat*, also emphasizes that "Out of 4 instructional hours a day, 2 ½ of hrs could be earmarked to language activities (viz., oral language development, Read Aloud, Guided Reading, Word Study, Guided Writing and minimum of 30 minutes of Independent reading) and 1 ½ hr for early Mathematics." [24]

Now that the policy is in place, the next and most important step is for it to be implemented effectively across states that each have varying capacities and contexts.

State Initiatives: After the launch of NIPUN, several state governments took proactive steps towards system wide FLN reforms. The NEP focus, the availability of funds from the Central SSA Scheme and the launch of NIPUN led to positive actions at the state level. While NEP emphasized the 'why' of foundational learning, NIPUN laid out the 'what' of it. States are now working to figure out the 'how' in their own state contexts. Inputs from the various NGOs have been sought to collaboratively address challenges. The authors of this article and their teams have been involved in several of these efforts. A few noted below:

- In 2021, the Government of Madhya Pradesh initiated 'Mission Ankur' to drive and achieve foundational literacy and numeracy across the state. A Project Management Unit (PMU) has been set up at the state level to support planning, implementation and monitoring of the project, which has representation from a coalition of non-profits including The Education Alliance, Room to Read, Central Square Foundation and Vikramshila Education Resource Society. The group co-created student materials, teacher guides and training content and monitoring systems related to FLN, to be implemented across the state.

- In a similar effort, the Government of Uttar Pradesh launched 'Mission Prerna' to improve FLN status across the state starting in 2020. A group of several NGOs organizations including Central Square Foundation, Samagra Education, Language and Learning Foundation, Sampark Foundation, Room to Read and CARE India have been supporting the government in co-designing and implementing the initiative.

- The Government of Bihar and Jharkhand has launched the India Partnership for Early Learning (IPEL) project in collaboration with USAID, Room to Read and CARE India. The project aims to support respective governments in transforming the delivery of foundational learning in all schools

[22] See note 19 above.

[23] "About NIPUN Bharat," NIPUN Bharat, accessed February 21, 2023, https://nipunbharat.education.gov.in.

[24] Ministry of Human Resource Development, *Phadhe Bharat Bhadhe Bharat* (Government of India, 2014), 9, https://www.education.gov.in/sites/upload_files/mhrd/files/document-reports/Padhe-Bharat-Badhe-Bharat.pdf.

across the state and increase the percentage of students attaining minimum proficiencies in reading, writing and mathematics.

- The Government of Chhattisgarh has initiated co-creating of FLN and Early Childhood Education (ECE) materials and training of teachers in partnership with several NGOs like Language and Learning Foundation, Sampark Foundation and Room to Read
- In Rajasthan, the planning of FLN interventions is being facilitated by UNICEF in partnership with various NGOs like Room to Read. The NGO partners are working with government departments to co-create FLN content.
- The Government of Telangana has recently initiated proactive steps to implement state-wide FLN intervention. They are being supported in the planning and implementation by Central Square Foundation and Room to Read.

Similar statewide initiatives have been rolled out by other state governments in collaboration with other NGOs.

What remains to be done: While the current efforts undertaken by the government, both central and state, are commendable, it should be ensured that the foundational literacy programs are being designed with sensitivity to local contexts and with full understanding of the nuances of *akshara*-based literacy acquisition, as explained in the sections above. Also, most children are polyglots with linguistic fluidity, so children need time to understand the sound-symbol correspondence in coherent orthographies being used in language of instruction. The alignment of curriculum, materials, training and monitoring are critical. Literacy is a skill that must be painstakingly learnt and developed through exposure and practice. Reading deeply, and not fluency alone, is an essential skill, irrespective of gender, class, and other variations. And therefore, literacy endeavors in India will have to be carefully tailored to the various contexts within the country and implemented diligently. Adequate time for reading instruction needs to be ensured.

Given the multilingual realities of the country and the difficult situations in the government schools, enabling a comprehensive literacy experience for the children is a huge challenge. The language- orthographic premise plays a major role in deciding not only how neuro-cognitive and psycholinguistic processes would support learning to read a language, but also how 'at scale' literacy programs should look. Multilingual realities must be understood so that they can be addressed in literacy programs as they are implemented in schools. Decisions on literacy instruction and intended literacy gains should consider the technicalities involved with the scripts and languages and not only the socio-linguistic hierarchy of the languages. The time a child needs to reach and then sustain a fluency benchmark coupled with effective comprehension must also be taken into account.

The education system is in urgent need of dedicated teachers for FLN. Teachers need to be professionally developed and supported onsite to facilitate a comprehensive literacy experience for children across the country. Teacher support needs to be demonstration-based and in practical language that teachers can quickly execute against, rather than built on the use of heavy theoretical jargon. Onsite coaching with experiential learning is a necessity. Monitoring should be incorporated with a focus on quality at scale.

In India, a large proportion of children in schools come from disadvantaged socio-economic backgrounds and have limited, if not a complete absence of, exposure to written texts or enriching oral discussions at home. Children therefore need to have enough levelled and authentic materials to practice with as they are learning to read. For example, *Daadi ki Jhaadoo* is a famous folk story in Chattisgarh, which Room to Read is bringing to life in a children's book that will be used for literacy activities in the classroom. Meeting the need of children to have materials they can quickly connect to and that will inspire reading will require private publishers to seek out locally contextualized content, partner with governments and publish quality children's literature in local languages.

Additionally, the preschool experience through *anganwadis* does not prepare young children with the necessary pre-literacy skills to excel as they enter formal schooling. If we cannot see progress in this area immediately,

starting with co-located preschools and redesigning the initial months of grade 1 instruction may also be an option until that time when the preschool component, as envisioned in the NEP, is implemented.

In a nutshell, environments that support early literacy development are important for all children. A detailed understanding of the primary factors that shape literacy development helps shape effective policy considerations, especially in a context like that of India, which has the added complexity of large scale and multilingualism. Ensuring quality at scale will require the recommendations in this paper to be acknowledged, standardized, and customized according to state-based contexts. Part of the battle against low learning levels was won when the right policy was put in place. The rest will only be within our grasp with collective commitment to execution. A laser-focused approach to implementation is what ensures that *all* Indian children benefit through increased earnings and dignity as young adults - and that *all* Indians benefit from the resulting economic growth.

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