

# Foundational Literacy and Numeracy: A Pre-requisite to Learning and ECCE

## Background Note

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### Introduction

Early childhood (birth to 8 years) is a critical period of development and early literacy and early numeracy are two important skill areas that develop during this period. Literacy and numeracy development begins in the first three years of life and is closely linked with daily communications, actions, thoughts and drawings of young children. Parents and the home learning environment and interactions of young children with literacy materials as books, paper, and crayons are the building blocks for the development of language, reading, writing and numeracy. This understanding of early literacy development complements the current research supporting the critical role of early experiences in shaping brain development.

### Education in the Early Years

Young children are active, energetic, curious and interested in people, objects and events around them. They actively seek to make meaning of their experiences and their capacities continuously evolve. Children learn by doing and actively use their sensory capacities to understand the world around them. They discover and construct knowledge through the activities they are involved in. To enable children to understand concepts and develop their abilities, adults need to provide them opportunities to explore their environment, manipulate objects, engage in experimentation and ask questions and search for answers. These hands-on experiences help them understand how things work and in this way each child re-constructs his/her own understanding of the world.

At the same time, children learn in context of relationships. Children also need guidance and instruction from teachers and more knowledgeable peers who can help the child to move from one developmental level to the next – they help the children to move through their zone of proximal development. Having identified concepts and tasks which are within the child's potential development level (i.e. what the child is capable of doing with help), the teacher needs to provide dynamic support, guidance and teaching so that the child reaches her potential and is able to do the task independently.

## **Definition of Literacy and Numeracy**

UNESCO defines literacy as the ‘ability to identify, understand, interpret, create, communicate, compute and use printed materials associated with varying contexts. (Education for All; Global Monitoring Report, UNESCO, 2006). Literacy is more than the ability to read and write. It involves the knowledge, skills and abilities— the competencies—that enable individuals to think critically, communicate effectively, deal with change and solve problems in a variety of contexts to achieve their personal goals, develop their knowledge and potential, and participate fully in society.

Numeracy encompasses the ability to use mathematical understanding and skills to solve problems and meet the demands of day-to-day living in complex social settings. To have this ability, a young person needs to be able to think and communicate quantitatively, to make sense of data, to have a spatial awareness, to understand patterns and sequences, and to recognise situations where mathematical reasoning can be applied to solve problems.

## **Why are Literacy and Numeracy Important?**

Early literacy and numeracy skills are not only foundational for learning but are correlated with greater quality of life, personal well-being, national stability, prosperity and are critical for educational outcomes in later years. Strong literacy and numeracy helps children to learn, experiment, reason and create, to be active and informed citizens, and to contribute socially, culturally and economically. Lack of learning opportunities during the early stages of acquiring literacy and numeracy impede children’s academic progress and motivation, resulting in further lack of achievement.

## **Vision**

The vision for foundational literacy and numeracy therefore is to enable children to become independent and engaged readers and writers who are able to transition from ‘learning to read’ to ‘reading to learn’ and from ‘learning to write ‘ to ‘writing for academic success and pleasure’. Children demonstrate an understanding of numbers and knowledge of mathematical concepts, make connections between related ideas and progressively apply their understanding in new and unfamiliar contexts.

To achieve the vision it is important that we understand the present status of reading and writing among children in the country. Various researches conducted in the country point out that the children are facing a learning crisis.

### **The Learning Crisis**

The National Policy on education (NEP,2020) highlights that various governmental as well as non-governmental surveys clearly indicate that, at the current time, we are in a severe learning crisis with respect to these most basic skills: a large proportion of students (over 5 crore in number) currently in elementary school - 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. Numerous studies show that, in the current educational system, once students fall behind on foundational literacy and numeracy, they tend to maintain flat learning curves for years, perpetually unable to catch up. So many capable students have found themselves in this unfortunate black hole, unable to emerge. For many students, this has become a major reason for not attending school, or for dropping out altogether.

The NEP, 2020 further reiterates that it is imperative to address this crisis head on and immediately so that basic learning can be accomplished in schools and all students may thereby gain the opportunity to obtain an education of quality. Attaining foundational literacy and numeracy for all children must become an immediate national mission. Students, along with their schools, teachers, parents, and communities, must be urgently supported and encouraged in every way possible to help carry out this all-important target and mission, which indeed forms the basis of all future learning.

The NEP, 2020 has recommended that In order to avert the learning crisis there will be an increased focus on foundational literacy and numeracy -and generally, on reading, writing, speaking, counting, arithmetic, and mathematical thinking -throughout the preparatory and middle school curriculum, with a robust system of continuous formative/adaptive assessment to track and thereby individualize and ensure each student's learning. The aim of education will not only be cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21st century skills. For this assessment in our schooling system will shift from one that is summative and primarily tests rote memorization skills to one that is

more regular and formative. The system will be competency-based, promote learning and development of children, and test higher-order skills, such as analysis, critical thinking, and conceptual clarity.

### **Way Forward**

The Ministry of Education, Government of India has already launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) mission along with a detailed implementation guideline for the states to ensure that every child in the country necessarily attains foundational literacy and numeracy (FLN) by the end of Grade 3, by 2026-27. For this, the learning outcomes have been defined for six years in a continuum in six levels from Preschool to grade 3 (3-9 years). It has also set the '*Lakshya*' (targets) for each class from Balvatika onwards. The mission guidelines recommend shifting towards competency based education and using school based assessment for providing continuous guidance to teachers.

In tune with the National Mission, the State Mission, District Mission and Block missions have to be chalked out by the states and ensure that the learning outcomes are achieved. Roles and responsibilities and functions of all the stakeholders involved in the mission at each level are defined in the NIPUN Guidelines.

A robust IT system is recommended to be used for FLN Mission for big data analytics at National, State and School level. The FLN Mission recommends leveraging DIKSHA (Digital Infrastructure for Knowledge Sharing) which is the national digital platform for school education in India, an initiative of National Council for Education Research and Training (NCERT) and Ministry of Education. To empower the teachers, a capacity development programme for teachers and school heads, NISHTHA, FLN will be launched by the NCERT through DIKSHA online platform. A 3 Month School Preparatory Module-VidyaPravesh has also been launched by the NCERT.

The FLN Guidelines also advocate engaging meaningfully with parents, families and community to create awareness among them also to engage them in the teaching learning process of their children.