THE RESEARCH DIALOGUE
An Online Quarterly Multi-Disciplinary
Peer-Reviewed / Refereed Research Journal
ISSN: 2583-438X
© The Research Dialogue | Volume-04 | Issue-04 | January-2026
Available online at: https://theresearchdialogue.com/
DOI: https://doi.org/10.64880/theresearchdialogue.v4i4.25

Evaluating NEP 2020's Strategy for Foundational Literacy and Numeracy

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Abstract

The National Education Policy (NEP) 2020 of India prioritizes foundational literacy and numeracy (FLN) in school education. This focus on reading, writing, and numeracy as the educational foundation has long been a recognized goal both nationally and globally. A national mission addressing FLN emphasizes its importance, aiming for all students to achieve proficiency by Grade 3. This mission is the top priority in the National Council for Educational Research and Training (NCERT) strategic plan for 2020–2025. The FLN objective encompasses skill attainment and its impact on learning outcomes and dropout rates, allowing for a flexible evaluation approach. Extensive evidence supports this mission, linking FLN skills to educational success and variations influencing learning quality. (Black & Yasukawa, 2010)(Wildschut et al., 2016)

Keywords: National Education Policy, foundational literacy and numeracy, strategy.

1. Introduction

The National Education Policy (NEP) 2020 was approved by the Union Cabinet of India on July 29, 2020, marking the first comprehensive education policy in 34 years. Acknowledging the critical role of Foundational Literacy and Numeracy (FLN) in ensuring quality education, it emphasizes the need to improve these skills among young learners. Government statistics indicate that around 70% of class 3 students, 62% of class 5 students, and close to 50% of class 8 students are unable to read grade-level texts. The NEP 2020 aims to achieve basic FLN competencies for all students by 2025 and suggests key strategies to bolster foundational learning (Black & Yasukawa, 2010). The following evaluation investigates the implementation of NEP 2020's FLN strategy across Indian states. Consequently, the evaluation is organized as follows: first, the objectives of NEP 2020's FLN strategy and its policy framework are outlined; second, the methodology employed to assess implementation is presented; third, the key insights

on FLN strategy implementation are delineated, providing an overview of the educational landscape post-NEP 2020; and lastly, the anticipated outcomes of NEP 2020's FLN strategy are examined, highlighting expected improvements in early-grade reading, numeracy, equity, and instruction quality (Wildschut et al., 2016).

2. The Foundational Literacy and Numeracy Objective within NEP 2020

The Policy Framework from the National Education Policy 2020 document has articulated the vision of the Government towards Foundational Literacy and Numeracy. The FLN understanding and acquisition have been defined as skills that every young learner needs as a fundamental basis to continue the process of learning any other subjects at successive levels (Wildschut et al., 2016). Both Reading and numeracy skills are of utmost importance in the early stages of education for children in the age group of 0-8. Pre-school education and the health and nutrition of the children also play a crucial role complementary to the FLN skill pursuit during the early stage of education (Black & Yasukawa, 2010). National and State curriculums along with the running textbooks should reflect the requisite level of FLN for pre-primary and primary stages. Proper allocation of Teaching Time devoted to reading, writing, and numeracy in initial years of schooling should be ensured for an effective FLN skill development. Ensuring a minimum level of FLN amongst children prior to entering grade V has been envisaged as an aspirational National Target under NEP 2020. Similarly, ensuring that 100% of primary and upper primary students achieve the National FLN standard prior to completing grade V and VIII has been declared as an aspirational State Target.

2.1. Rationale and Global Context

Progress in economically advanced countries has begun to reconfigure the conceptual foundations and pervasive definitions in both early and later stages of educational development. Recently the OECD and several countries have been refining estimations of the skills considered necessary for participation in an advanced technology economy. The reconfigurations are accompanied by technological measures to assess the skills that are intended not only for children of appropriate ages but also for older participants, the definitions tending to range beyond literacy and numeracy alone. In conclusion, these are the skills generally agreed to be requisite for children about to enter labour force roles in society that can make use of advanced technology (Black & Yasukawa, 2010). Despite the rhetoric of universal access and the political statements to the contrary, numbers of countries, both developed and emerging economies, have acknowleged decreasing public willingness to invest in education, which is perceived to have become a private investment in an individual's future income at the expense of society, although so far the decline appears to be sought to be overtly mask fashionably by the introduction of more quantitative assessments of school performance (Wildschut et al., 2016).

2.2. Policy Framework and Targets

To ensure that all learners reach at least foundational literacy and numeracy (FLN) by Grade 3, NEP 2020 sets out an ambitious federal vision centred on three core principles: comprehensive

assessment of FLN capabilities in primary grades (Classes 1-3); identification of students not achieving grade-level FLN standards and provision of appropriate support; and a framework for effective, equity-oriented teaching throughout primary education. Specific strategies under this vision—in place as of September 2022—target all Indian children in the foundational learning age group (3-8 years), extending the focus beyond Grades 1-3 towards the early years of childhood, with the goal of universal acquisition of FLN skills by the end of Grade 3 (Black & Yasukawa, 2010).

3. Methodological Foundations for Evaluation

To implement a comprehensive and credible evaluation of NEP 2020's FLN strategy, it is crucial first to delineate meaningful definitions and monitoring indicators for foundational literacy and numeracy and to identify relevant data sources. The scope of FLN is broad, covering both early offline and advanced online skills, yet NEP 2020 emphasizes proficiency in basic reading, writing, and arithmetic by Grade 3 (Wyatt, 2017). The Federal Ministry of Education has established an ambitious national target of achieving 100% FLN by 2025, with states expected to determine their own grade-wise interim targets (Wildschut et al., 2016).

Evaluation of NEP 2020's FLN strategy must rely on a pragmatic yet robust analytical framework that supports causal inference. Frameworks such as theory-based evaluation analyse the formal chain of inputs, activities, and outputs, clarifying the direct and indirect outcomes of FLN. Such specifications provide an essential anchor for considering relevant data sources, measurement approaches, and econometric methods (Black & Yasukawa, 2010).

3.1. Definitions and Indicators of FLN

Foundational literacy and numeracy (FLN) refers to reading, writing, and arithmetic skills that underpin learning as well as participation in work and civic life. NEP 2020 places FLN among the country's highest priority education objectives, with the aim for all children to achieve proficiency by Grade 3.

FLN has multiple definitions worldwide, as well as variant terms, such as literacy and numeracy, foundational skills, basic skills, early literacy and numeracy, early-grade learning, and fundamental learning. The U.S. National Council on Teacher Quality (NCTQ; 2017) emphasises the interrelatedness of reading and mathematics in its foundational learning definition, whereas other bodies adopt orthogonal notions of FLN that centre more narrowly on reading, numeracy, or like skills. UNESCOP (2021) holds a broader perspective, encompassing not only reading and numeracy but also 21st-century skills, self-directed digital literacy, analytical and critical thinking, environmental science awareness, social-emotional skills, socio-cultural skills, and global citizenship.

3.2. Data Sources and Measurement Approaches

A thorough evaluation of NEP 2020's FLN strategy necessitates a clear understanding of foundational literacy and numeracy (FLN), appropriate indicators, and timely data. FLN includes essential reading and arithmetic skills usually acquired by the end of primary education, deemed

vital for further learning. Indicators also cover early writing and math skills, valuable for improving education quality and aiding future learning (Lilenstein Adaiah, 2016). The FLN strategy aims to monitor (i) the percentage of children achieving FLN proficiency and (ii) the average FLN proficiency of those who are proficient by the end of early primary. International benchmarks enhance evaluation; a National Council of Educational Research and Training report states that a proficient child can read simple sentences, perform basic arithmetic, and apply mathematical concepts in real life. Data on FLN proficiency can come from various sources. The Annual Status of Education Report (ASER) for rural areas and the National Achievement Survey (NAS) for both urban and rural settings have been conducted since 2005 and 2007, respectively. ASER assesses the ability to read and solve simple arithmetic, while NAS covers a broader scope of language and mathematics. Although national datasets may not be complete, state-level indicators can be derived from ASER and NAS for different years. Given India's varied FLN levels, state-level data is vital. Additional surveys can provide insights into early writing, numeracy, and alignment with benchmarks. Thus, analysis should use multiple sources for comprehensive indicators. (Johnson & Parrado, 2021)

3.3. Analytical Frameworks and Causal Inference

The evaluation is organized through a number of analytical frameworks that offer insights into the causal links between policies, processes, and outcomes. The first framework focuses on policy formulation through the lens of systems and the theory of change, describing the intended causal linkages articulated in the policy document itself. The second framework positions FLN improvements within a broader context of educational outcomes. It draws on international evidence regarding the interrelations among foundational skills, early grade competencies, overall learning trajectories, and longer-term socio-economic benefits (Sellings et al., 2018).

4. Implementation Landscape

India has made substantial efforts to improve FLN. National FLN Mission and State FLN Missions have been launched. The National FLN Mission has developed a National FLN Curriculum Framework and State FLN Frameworks in line with NEP 2020. K–5 learning outcomes focus on early language, literacy, and numeracy skills and have been shared with States to prepare State Curriculum Frameworks. The National FLN Mission provides a plethora of resources and guidelines through the National Repository on FLN and other platforms. National and State- level surveys of foundational language, numeracy, and reading skills have been conducted and are planned to assess the situation. Despite these vast initiatives, more than 30% of school children above grade 3 still cannot read a grade 2 level text, based on large- scale studies. Earlier reports on State Literacy Campaigns show that even these campaigns, designed as ‘national priorities’, fail to reach the neglected regions.

Progress toward the NEP FLN objective needs to be closely monitored. Not all material and training prepared before the pandemic are being used. Teacher educators have limited bandwidth

and may not deliver what they are supposed to. Excessive focus on 'in-service' may ignore the initial training required to achieve the new recommendations (Black & Yasukawa, 2010).

4.1. State Level Variability

A considerable variation exists in the implementation of NEP 2020 FLN policy across Indian states and union territories. The descriptive analysis conducted by NITI Aayog in 2020, based on 2018-19 and 2019-20 data from the Unified District Information System for Education, illustrates the overall system performance of all states with regard to the various indicators emphasized in the FLN policy. Due to incomplete data availability, only indicators directly associated with foundational literacy and foundational numeracy were retained; these mostly align with the existing National Achievement Survey and the National Assessment Survey assessments (D. Schafer et al., 2019). The ranking of states on FLN policy implementation shows that UP, Gujarat, Jharkhand, and Bihar achieve the lowest overall scores, while Karnataka, Delhi, Goa, and Sikkim achieve the highest.

A substantial variation obtaining at the state level is not confined solely to overall performance but is, in fact, equally considerable in the specific domains of foundational literacy and foundational numeracy. The absence of a uniform approach in defining foundational literacy, foundational numeracy, and FLN, combined with an equally diverse array of indicators employed across state-level assessments, serves to complicate intra-country comparisons in FLN policy implementations. Furthermore, most FLN indicators articulated at the national level, encompassing both early learning and early reading, do not feature in state assessments, which adds further complexity to the analytical efforts required to link the various states to the overall national FLN objectives (Wildschut et al., 2016).

4.2. Resource Allocation and Capacity Building

Within the FLN domain, there is significant variability among the eight states in terms of planning, launch, and resourcing (Wyatt, 2017). The wide range of approaches adopted by different states is evident in the range of policy documents available on FLN. Some state plans, such as Tamil Nadu's, appear to be broadly in line with NEP 2020. Meanwhile, several states, including Gujarat and J&K, are moving towards a comprehensive FLN strategy by addressing issues raised in earlier plans while others, such as Chandigarh, appear to address a narrow interpretation of the FLN mandate or have not yet explicitly launched an intervention. Such heterogeneity illustrates that each programme is designed around a local context, thus amplifying the potential for useful cross-state learning. Provisioning of funds, materials, and training also varies significantly. By October 2021, only two of the eight states reporting on FLN to NCERT had initiated disbursal of funds for implementation (e.g., Madhya Pradesh had released ₹1,200m). The same pattern recurs in respect of materials and training provision. Materials have yet to circulate widely among the eight states; three states report very little or no activity on this front, while two states have produced large volumes yet still observe major resource and training gaps. Capacities for FLN implementation are correspondingly extremely uneven.

4.3. Teacher Training and Pedagogical Practices

Teaching quality is the most significant school-related factor influencing student outcomes in India, identified as a key constraint for achieving minimum learning standards. Among seven initiatives for foundational learning, extensive teacher training and pedagogical practices are prioritized. Initiated in the 1960s, various policy statements have highlighted the need for adequate teacher training across the country. Despite this, a survey reveals widespread deficiencies in Teacher Education Programs. Additionally, the higher education system faces challenges like high fees and irrelevant curricula. Significant work remains in Teacher Education, focusing on Teacher Orientation, reviewing frameworks, and effective delivery methods, including ICT integration. The National Policy on Education (NEP, 2020) acknowledges the necessity of enhancing early childhood education, teacher training, in-service training, and continuous professional development. Teacher Education plays a vital role in bridging Higher Education and School Education systems. (Sellings et al., 2018)

4.4. Assessment Systems and Feedback Mechanisms

Quality assessment systems, along with timely feedback mechanisms, are essential for gauging student competency and the effectiveness of the learning process. Assessments also facilitate the identification of specific curricular barriers and inform corrective action. The NEP 2020 emphasizes the need for state-level assessments at grade 3 (for students aged eight) and for regular diagnostics, task-based assessments, and formative assessments—particularly in Mother Tongue languages—for pre-primary to grade 2 students (MoE, 2020). Such large-scale assessments are critical for monitoring ongoing progress toward foundational literacy and numeracy.

Low-stakes, formative assessments conducted at frequent intervals help to improve student performance through timely feedback. These assessments can be implemented through a wide variety of digital and non-digital media formats. They enable teachers to monitor each student's focus and engagement levels, develop individual learning pathways, and ascertain which learning themes are capturing each student's interest (Wildschut et al., 2016). Various tools and techniques have been identified to enhance foundational literacy and numeracy, including multi-sensory and hands-on activities or feedback tied to the student's prior work, drawing or problem-solving methods, and recommendations for independent follow-up activities (Benton et al., 2018).

5. Evidence on Outcomes and Quality Improvement

Significant portions of the Indian student population still struggle to achieve the foundational literacy and numeracy (FLN) expected by the end of Grade 3. Evidence indicates substantial variability among states; while some states meet FLN benchmarks for 90% of learners, in others fewer than 30% meet benchmarks for early reading and numeracy skills. Moreover, girls and students from rural and disadvantaged backgrounds face additional barriers. A series of reforms have been implemented nationwide as part of a larger initiative to enhance primary education, yet these efforts have not yet produced evidence of reduced disparities in FLN.

Additional dimensions of the FLN strategy beyond Scope 1 may also affect student outcomes. Available evidence points to a negative association between FLN proficiency and the number of weekly periods dedicated to language and mathematics instruction. Variations in curriculum coverage appear to affect FLN acquisition, with fidelity to curriculum standards positively correlated with FLN scores. Finally, certain aspects of pedagogical practice also seem relevant: greater use of classroom organization techniques and low-tech assessment practices are positively associated with FLN scores, while structured lesson planning or the use of digital classroom materials do not appear to be related to student FLN proficiency (Wildschut et al., 2016) ; (Wyatt, 2017) ; (Rogers & Hallam, 2013).

5.1. Early Reading and Numeracy Proficiencies

The National Education Policy (NEP) 2020 seeks to address the Foundational Literacy and Numeracy (FLN) crisis in the early grades of school education, as identified in the foundational skill tests by the National Assessment Survey (NAS) and the Annual Status of Education Report (ASER). According to the NAS, more than 5 crore children enrolled in Grades I–V are estimated to be deficient in fundamental literacy or numeracy skills, and since 2014, the annual ASER reports indicate that the proportion of children in Class III able to read a Class I level text has declined from 52.7% in 2014 to 27.3% in 2020 (Wildschut et al., 2016). Similarly, the proportion of children in Class I able to do simple subtraction stands at 29.5%, according to ASER 2020. International and national studies indicate that early reading and numeracy proficiencies are crucial for learners' language, literacy, and numeracy skills development and for their subsequent academic success (Trainin, 2006). Low attainment in FLN during the early years is associated with the risk of students dropping out of the education system (UNESCO, 2020). Subsequently, NEP 2020 has included FLN as one of the identified critical foundational skills to be achieved in the early grades.

5.2. Equity Considerations and Inclusion

Equity considerations and inclusion are central to the foundational literacy and numeracy (FLN) strategy outlined in India's National Education Policy 2020 (NEP) (Ainscow, 2016). Disadvantaged groups, such as Scheduled Castes and Scheduled Tribes, gender minorities, and learners with disabilities must receive particular attention when devising implementation plans. Equity, in education, refers to the assurance that personal or social circumstances do not hinder educational potential and that all individuals attain at least a basic minimum level of skills. Equity also encompasses inclusion, fairness, and social justice; the aspiration being that all learners access quality education. FLN policies must proactively identify and overcome barriers to education across diverse student needs, contexts, and lived experiences.

5.3. Instructional Time, Curriculum Alignment, and Pedagogical Quality

Both the National Education Policy 2020 (NEP, 2020) and the Preamble to the New National Curriculum Framework 2023 (NCF, 2023) emphasise foundational learning as a priority. The NCF notes that "time spent on foundational learning content should be increased significantly in

the early primary grades, focussing on literacy and numeracy competencies." A system emphasising these elements ought to increase time and attention to these subjects in these grades, permitting opportunities for pedagogy and curricularisation to be improved, and careful alignment with assessments. Early surveys reveal considerable scope for such improvement and that existing instructional time remains below expectations (Singal et al., 2017).

6. Challenges and Limitations in NEP 2020's FLN Strategy

To achieve the intended result of universal foundational literacy and numeracy, the NEP 2020 Strategy seeks to reduce the overall number of children with no foundational literacy and numeracy skills to 2030, and the drop or stall in foundational literacy and numeracy acquisition in early primary grades to 2025 and 2027 respectively. Achieving universal foundational literacy and numeracy is a precondition for achieving other levels of learning, and a precondition for acquiring literacy and numeracy skills on grade by grade basis from grade I onwards.

As in many other countries, India has been facing a learning crisis, a situation where children are enrolled in school but not learning. As a consequence of the pandemic situation, India has been also suffering from a learning loss scenario in early Grade reading and maths. As many as 85% of children in Grade III still not able to read a Level I text and 65% of rural children in Grade III still not able to solve 2 digit by 1 digit addition sums after 18 months of School closure (Black & Yasukawa, 2010).

In India's education system, ensuring proficiency in foundational literacy and numeracy has remained a long-standing vision embraced in the National Policy on Education (NPE), the various national documents preceding NEP 2020 and integrated in the policy objectives of the National Mission on Foundational Literacy and Numeracy (NFLM) of the Ministry of Education (MoE). Considering early and foundational literacy and numeracy as the primary indicators of children's school readiness and lifelong learning, the NPE, NCF and the Focus Group report on Early Childhood Care and Education stressed that all children must attain proficiency in these areas by the end of Grade II (MoE, 2020).

7. Policy Implications and Recommendations

In implementing NEP 2020's strategy for foundational literacy and numeracy (FLN), evidence-informed, coherent, systematic, and context-specific policy actions are crucial for ensuring effective learning outcomes across the country. First, the implementation of foundational FLN is variable and sporadic across different states and union territories (UTs) in terms of a consistent state policy framework, resource allocation, capacity-building mechanisms, teacher training, pedagogical practices, assessment systems, and feedback loops. Even within states, policy action remains uneven and limited. Diversification in state and UT policy, design, and implementation approaches can illuminate wider options and selection criteria for other jurisdictions.

Second, early reading and numeracy, though foundational for broader learning, are not sufficiently prioritized in either policy or practice (Black & Yasukawa, 2010). Time allocated to instruction—through clock hours, instructional years, weeks-per-year, and days-in-week—varies

significantly among states and is consistently minimal throughout the country compared to many international norms. Instructional time is misaligned with curriculum standards designed to achieve core competencies within specific time frames. Where expressed in Years, insufficient coverage—often less than 50% of what is required—is compounded by curriculum misalignment and poor-quality pedagogical practices. The majority of children are routinely assigned to whole-class or small-group instruction that lacks the intensity, structure, and frequency to enable high-percentage mastery of basic reading and numeracy tasks, instructional conditions which minimally govern the FLN succeed criteria. The opportunity–resource–supply–engagement process fails at multiple levels.

8. Conclusion

As articulated, the foundational literacy and numeracy (FLN) objective set within the New Education Policy, 2020 (NEP, 2020) is aligned with the Global Education (in the Early Years) Programme (GLEE) 2030 framework of Universal basic education (GoI, 2020, p. 6). Examination of the FLN objective within NEP 2020 reveals a number of implementation challenges in Universal basic literacy and numeracy in early years program across the states of India, across the foundation stage of education. Global evidence from education systems suggests the need for a rigorous and uninterrupted focus on the acquisition of (a) early literacy, (b) early, relational numeracy, and (c) good-quality instruction, policy characteristics and building a foundation for further learning in the foundational stage of schooling, is required to ensure these objectives successfully address the needs of every child for shifting from learning to read to reading to learn. Such a systematic and contextualised national programme across the three dimensions is required, underpinned by proactive policy action, which complements and is responsive to the FLN objectives and policies recommended by NEP 2020, is not only feasible but necessary (Black & Yasukawa, 2010). It aims to contribute to meeting the FLN NEP 2020 objectives, drawing on the substantial global evidence base around effective foundational skills programming for enhancing the literacy and numeracy competencies of all children (GoI, 2020). Rather than simply reinforcing the approach of earlier, non-systematic foundational skills initiatives, design of a national intervention of this type offers a pragmatic strategy for redressing the inequities exacerbated by COVID-19 lockdowns while mobilising and coordinating support for young children in foundation stage education—a critical priority wherever the aspiration is to build back better post-pandemic and provide immediate and expanded assistance for better learning outcomes across India (Black & Yasukawa, 2010).

Such efforts should address substantive gaps in foundational skill acquisition without compromising the integrity of universal and inclusive foundational stage coverage. High national priority of FLN should be complemented by distinct national responsiveness to the nine policy action imperatives specified in the National Education Policy 2020 (NEP, 2020) concerning curriculum recommendations, enhance the foundational stage of education.

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Cite this Article:

Tripathi Nikita Mani," Evaluating NEP 2020's Strategy for Foundational Literacy and Numeracy"The Research Dialogue, Open Access Peer-reviewed & Refereed Journal, Pp.239–248,Volume-04, Issue-04, January-2026, https://theresearchdialogue.com/

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Evaluating NEP 2020's Strategy for Foundational Literacy and Numeracy

Published in 'The Research Dialogue' Peer-Reviewed / Refereed Research Journal and E-ISSN: 2583-438X, Volume-04, Issue-04, Month January, Year-2026, Impact Factor (RPRI-4.73)

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DOI: https://doi.org/10.64880/theresearchdialogue.v4i4.25