

# A Study On Foundational Literacy & Numeracy: Educational Developments In Odisha

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## ABSTRACT

The significance of foundational literacy and numeracy (FLN) in educational reform is undeniable. This study intricately examines Odisha's education system, focusing on cultivating these fundamental skills within the broader context of India's educational landscape. By exploring the current state, challenges, and strategies, the research aims to inform policy decisions and catalyze effective initiatives to enhance FLN. Utilizing a mixed-methods approach, this study combines quantitative data from standardized assessments with qualitative insights from interviews and field observations. It holistically evaluates existing pedagogical approaches, curriculum design, and teacher training programs, drawing on both primary and secondary research. The role of technology in transforming Odisha's FLN landscape is a key focal point, with an investigation into the integration of digital tools and online resources that enhance learning outcomes. The study also underscores the collaborative efforts of government bodies, non-governmental organizations, and community stakeholders in driving positive changes in foundational education. By examining successful case studies, the research highlights contributions to the advancement of literacy and numeracy within Odisha's educational framework.

Aligned with the paradigm shift catalyzed by the National Education Policy (NEP) 2020, the study envisions the successful realization of the NIPUN Bharat mission by the end of 2026 and 2027. This mission's community-centric initiatives seamlessly blend with Odisha's educational objectives, reflecting the transformative vision of the NEP. Such alignment accentuates the

potential for community-driven educational enhancements. By presenting a comprehensive analysis, this study aims to ignite dialogue, inform policy formulation, and stimulate collaborative efforts, ultimately nurturing holistic foundational education in Odisha. The envisioned success of the NIPUN Bharat mission aligns seamlessly with the forward-looking ethos of NEP 2020, ushering in a promising educational landscape for Odisha and beyond.

**KEY WORDS** Foundational Literacy, Foundational Numeracy, NIPUN Bharat Mission, Educational Development, Paradigm Shift, Holistic Development.

## INTRODUCTION

Foundational literacy and numeracy (FLN) are the cornerstones of educational development, serving as essential skills that underpin students' academic success and lifelong learning. In the context of India, where educational disparities are stark across different states and socio-economic groups, the importance of robust FLN programs cannot be overstated. This study focuses on Odisha, a state characterized by its socio-economic diversity and cultural richness, to explore the current landscape of foundational literacy and numeracy. Odisha's education system, like many in India, faces significant challenges, including inadequate infrastructure, teacher shortages, and socio-economic barriers that hinder student progress. Despite these challenges, there have been concerted efforts by the government, non-governmental organizations, and community stakeholders to improve educational outcomes. The introduction of the National Education Policy (NEP) 2020 and the NIPUN Bharat mission marks a paradigm shift in India's approach to education, emphasizing the need for community-centric and technologically driven initiatives to enhance FLN. This study aims to provide a comprehensive analysis of Odisha's efforts to cultivate foundational literacy and numeracy. Through a mixed-methods approach, combining quantitative data from standardized assessments and qualitative insights from field observations and interviews, the research evaluates existing pedagogical approaches, curriculum design, and teacher training programs. A key focus is the integration of technology in education, examining how digital tools and online resources are being utilized to improve learning outcomes. By highlighting successful case studies and

collaborative efforts, this research seeks to inform policy decisions and advocate for tailored strategies that address the unique challenges of Odisha while capitalizing on its regional strengths. The alignment of Odisha's educational objectives with the NEP 2020 and the NIPUN Bharat mission underscores the potential for transformative, community-driven educational enhancements.

In summary, this study not only aims to shed light on the current state of foundational literacy and numeracy in Odisha but also to ignite dialogue and stimulate collaborative efforts towards nurturing holistic educational development in the state. The findings are expected to contribute to the broader discourse on educational equity in India and support the realization of national educational goals by 2026-2027.

### **OBJECTIVES OF THE STUDY**

1. To study the current state of foundational literacy and numeracy in Odisha.
2. To assess the effectiveness of existing educational policies and programs aimed at improving FLN.
3. To provide recommendations to enhance FLN outcomes in Odisha.

### **RESEARCH QUESTIONS**

1. What is the current state of foundational literacy and numeracy among primary school students in Odisha?
2. How effective are the existing educational policies, programs, and teaching methodologies in improving foundational literacy and numeracy in Odisha?
3. What recommendations can enhance foundational literacy and numeracy outcomes in Odisha?

### **RATIONALE OF THE STUDY**

Foundational literacy and numeracy (FLN) are critical for the academic success and overall development of children. In India, significant disparities in educational outcomes exist across different states and socio-economic groups. Odisha, with its unique socio-economic and cultural landscape, faces distinct challenges in achieving optimal FLN outcomes. Understanding these challenges and identifying effective strategies to address them is essential for improving the quality of education in the state. The National

Education Policy (NEP) 2020 and the NIPUN Bharat mission emphasize the importance of FLN and set ambitious goals for its improvement. However, the successful implementation of these initiatives requires localized insights and tailored approaches. This study aims to provide a comprehensive analysis of Odisha's current FLN status, evaluate the effectiveness of existing interventions, and offer actionable recommendations to enhance educational outcomes. By focusing on Odisha, this research will contribute valuable knowledge to the broader discourse on educational equity in India. The findings will inform policymakers, educators, and stakeholders, helping to bridge gaps in FLN and ensuring that all children have the foundational skills needed for lifelong learning and success. The study's emphasis on evidence-based recommendations aligns with national goals and supports the transformative vision of the NEP 2020, ultimately fostering a more equitable and effective educational landscape in Odisha and beyond.

Numerous studies, including the Annual Status of Education Report (ASER) by Pratham Education Foundation, have highlighted gaps in foundational literacy and numeracy across India. Research by RTI International emphasizes effective interventions such as structured pedagogy and teacher training. The World Bank's findings stress the impact of teacher quality and school infrastructure on learning outcomes. Studies on digital learning tools and community-driven approaches underscore their potential in enhancing FLN skills, supported by data from initiatives like the National Achievement Survey (NAS) by the Ministry of Education, India. These studies collectively inform strategies to address educational disparities and improve FLN outcomes.

### **INSIGHTS INTO FOUNDATIONAL LITERACY AND NUMERACY**

Understanding foundational literacy and numeracy is crucial for laying the groundwork for lifelong learning and academic success. Foundational literacy encompasses essential reading and writing skills that enable individuals to comprehend and communicate effectively. Similarly, foundational numeracy involves fundamental mathematical abilities that empower individuals to solve everyday problems and engage with quantitative information.

<b>Foundational Literacy:</b>	<b>Foundational Numeracy:</b>
<ul style="list-style-type: none"><li>• Identify letters, and identify initial or final words</li><li>• Read familiar words</li></ul>	<ul style="list-style-type: none"><li>• Identify numbers</li><li>• Discriminate between numbers</li><li>• Find missing numbers</li></ul>

Research underscores the significance of early childhood education and targeted interventions in fostering these foundational skills. Effective teaching methods, personalized learning approaches, and supportive learning environments play pivotal roles in nurturing literacy and numeracy development. Moreover, leveraging technology and interactive learning tools can enhance engagement and reinforce comprehension. In examining insights into foundational literacy and numeracy, it becomes evident that equitable access to quality education is essential for bridging educational disparities. Addressing socio-economic barriers, promoting inclusive education practices, and empowering educators with effective pedagogical strategies are essential steps toward ensuring all learners acquire strong foundational skills. By delving into the intricacies of foundational literacy and numeracy, educators, policymakers, and stakeholders can collaboratively advance educational practices that support comprehensive skill development and prepare learners for future academic and professional pursuits.

#### **Adherence to National and International Standards**

The significance of FLN extends beyond local borders, aligning seamlessly with both national and international educational benchmarks. India's National Education Policy (NEP) of 2020 underscores the pivotal role of these foundational skills in establishing a robust educational foundation. Additionally, FLN corresponds with Sustainable Development Goal 4 (SDG 4) set by

the United Nations, aiming to ensure inclusive and equitable quality education for all, with a specific emphasis on foundational competencies.

### **The Holistic Approach to FLN**

Foundational literacy and numeracy are integral components intertwined with broader educational dimensions. Embracing a holistic approach to FLN acknowledges that these skills flourish within a nurturing and supportive learning environment. This approach considers curriculum design, teacher training, resource availability, and socio-cultural contexts.

### **The Contribution of Technology**

In the contemporary digital era, technology serves as a transformative force in education. Digital tools and online resources can enrich the acquisition of FLN skills through engaging, interactive, and personalized learning experiences. The integration of technology into FLN education stands as a pivotal focus in Odisha's educational reform efforts.

Establishing a robust conceptual framework for foundational literacy and numeracy is critical. This framework lays the groundwork for a comprehensive exploration of Odisha's educational landscape, encompassing the challenges and strategies detailed in subsequent sections. Moving forward, we will analyze how this framework aligns with practical realities and how Odisha's distinct cultural and regional context influences the development of FLN skills.

### **IMPORTANCE OF EARLY LITERACY AND NUMERACY SKILLS ON ACADEMIC ACHIEVEMENT OF EARLY-GRADE LEARNERS:**

The importance of early literacy and numeracy skills on the academic achievement of early-grade learners is critical, particularly in the context of India and Odisha. These foundational skills serve as the cornerstone for future academic success. Early literacy skills encompass reading, writing, and comprehension abilities, enabling young learners to effectively engage with educational content across various subjects. Similarly, numeracy skills, involving basic mathematical concepts and operations, empower students to solve problems and understand quantitative information.

Research consistently highlights that early mastery of literacy and numeracy correlates strongly with overall academic achievement in later grades. Students who develop these skills early on are better equipped to navigate complex subjects and challenges as they progress through their education. Moreover, early intervention and support in literacy and numeracy can significantly narrow achievement gaps among students, promoting educational equity.

In both India and Odisha, educators play a pivotal role in cultivating early literacy and numeracy skills through developmentally appropriate teaching practices and personalized learning approaches. Creating a nurturing learning environment that integrates hands-on activities, interactive tools, and engaging educational resources enhances students' foundational competencies. Educational policies and frameworks in India, including initiatives specific to Odisha, underscore the importance of early literacy and numeracy skills. These initiatives prioritize enhancing foundational skills to ensure that all students have a solid academic foundation from the beginning of their schooling journey. Investing in early literacy and numeracy skills is essential for fostering academic achievement among early-grade learners in India and Odisha. By providing robust support and effective instructional strategies, educators can empower young students to excel academically and thrive in their educational pursuits.

### **STATE OF FOUNDATIONAL LITERACY AND NUMERACY IN INDIA (2021)**

The State of Foundational Literacy and Numeracy in India Report is a collaborative publication by the Economic Advisory Council to the Prime Minister (EAC-PM) of the Government of India and the Institute for Competitiveness.

Foundational Literacy and Numeracy (FLN) in policy documents refers to essential skills in reading, writing, and mathematics. It involves the ability to read and comprehend basic texts and perform simple mathematical calculations by the end of grade 3. These skills form the basis for all future learning and the development of other competencies. The National Education Policy (2020) places utmost importance on achieving Foundational Literacy and Numeracy. Within the schooling system, Foundational Literacy and Numeracy pertains to the education of children aged 3-8 years. This includes the first three years of preschool, followed

by early primary education up to grade 2, as outlined by the National Education Policy (NEP 2020). However, the NIPUN Bharat guidelines for NEP implementation define four foundational years, comprising one year of preschool plus formal schooling up to grade 3.

The report on the State of Foundational Literacy and Numeracy in India emphasizes the critical role of early education in a child's overall development. It underscores the significance of well-structured early interventions, such as the National Education Policy (2020) and the NIPUN Bharat guidelines, which contribute to long-term improvements in learning outcomes. Additionally, the report examines the Index on Foundational Literacy and Numeracy, which marks the initial step in assessing the overall state of foundational learning among children under ten years old across Indian States and Union Territories. The Index consists of five pillars, encompassing 41 indicators. These pillars are Educational Infrastructure, Access to Education, Basic Health, Learning Outcomes, and Governance. India is dedicated to achieving the Sustainable Development Goals 2030, with key objectives such as Zero Hunger, Good Health and Well-being, and Access to Education being aligned with the Index on Foundational Literacy and Numeracy.

#### **KEY FINDINGS**

- Kerala (67.95) and West Bengal (58.95) are the top-scoring regions among small and large states, respectively, where Odisha (45.58) is in the 10<sup>th</sup> Rank.
- Lakshadweep (52.69) and Mizoram (51.64) lead in the Union Territory and Northeast state categories.
- More than 50% of states scored below the national average of 28.05 in the Governance pillar, the lowest across all pillars.
- Pillar-wise analysis will help states assess budgetary measures and identify gaps obstructing the growth of Foundational Literacy and Numeracy.
- There is a significant gap between Kerala and other Indian states in the Index on Foundational Literacy and Numeracy scores.
- The variation is particularly notable in Learning Outcomes and Educational Infrastructure, necessitating immediate attention.



- The Index can inform policy reforms to improve areas where Foundational Literacy and Numeracy needs enhancement.
- Achieving quality Foundational Literacy and Numeracy for all requires sustained efforts and intention.
- Adequate budgetary resources and funding are crucial to improving quality education.
- Success in higher grades necessitates a focus on quality preschool education from the start.
- A two-Anganwadi worker model, with one worker dedicated to education, supported by resources and quality training, is necessary.
- Outdated curriculum and textbooks for early grades must be replaced with quality materials based on the Balanced Literacy approach recommended by the NIPUN Bharat guidelines.
- Enhancing the capabilities of both teachers and teacher mentors is critical.
- Emphasis on data-driven policy and practice is essential to achieving these goals.

#### **STATE OF FOUNDATIONAL LITERACY AND NUMERACY IN ODISHA**

Statistics from NAS 2017 and ASER 2018 in Odisha highlight significant learning disparities among Grade 3 students, with 69% unable to perform basic math operations and 61% unable to read Grade 2 texts in rural areas. Recognizing the urgent need to address this learning deficit, Odisha launched the Learning Enhancement Programme (LEP) in 2018, which focuses on equipping students with foundational skills before progressing to grade-level competencies. Initiatives like Ujjwal, Utthan, and Utkarsh were implemented to teach students from grades 1-9 at their individual learning levels, helping to bridge the gap between understanding and grade-level expectations. In 2019, a specific program for grades 1-3 was proposed to enhance Foundational Literacy and Numeracy (FLN), aligning with state learning outcomes and curricula to address critical learning gaps at the grassroots level.

Additionally, Odisha's School and Mass Education department has recently introduced new classroom features to boost FLN skills, such as colorful desks, educational materials, and wall paintings. The state's FLN implementation program employs an iterative

approach that includes planning, development, implementation, monitoring, review, analysis, and reporting, aiming for continuous improvement in both processes and outcomes.

**Table-1 Percentage of Children by Grade and Reading Level**

Std.	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	35.5	33.4	17.0	5.9	8.2	100
II	19.1	27.6	20.6	12.3	20.3	100
III	11.5	21.6	21.8	15.4	29.7	100

Source: ASER, 2022.Odisha RURAL

The reading tool tracks children's reading proficiency within each grade level. For instance, in Grade III, 11.5% of children cannot read letters, 21.6% can read letters but not words or more advanced texts, 21.8% can read words but not texts at the Grade I level or higher, 15.4% can read Grade I level text but not Grade II level, and 29.7% can read Grade II level text. Each grade's total in these categories sums up to 100%.

**Table-2 Percentage of Children by Grade and Arithmetic Level**

Std.	Not even 1-9	Recognize number		Subtract	Divide	Total
		1-9	11-99			
I	35.2	36.6	21.4	5.1	1.8	100
II	18.1	32.8	30.9	13.7	4.5	100
III	10.0	27.7	33.0	20.8	8.6	100

Source: ASER, 2022.Odisha RURAL

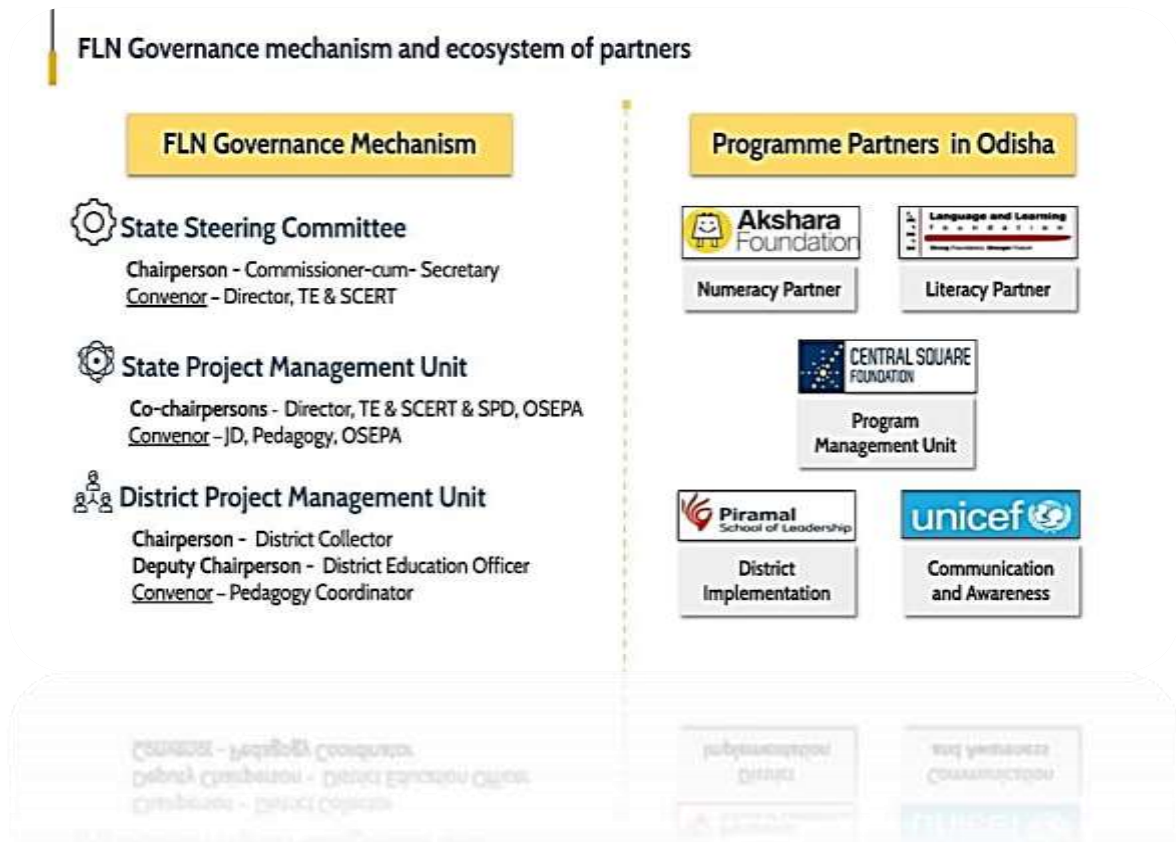
The arithmetic tool tracks children's arithmetic skills within each grade level. For example, in Grade III, 10% of children cannot recognize numbers 1-9, 27.7% can recognize numbers up to 9 but not numbers up to 99 or higher, 33% can recognize numbers up to 99 but cannot perform subtraction, 20.8% can perform subtraction but not division, and 8.6% can perform division. Each grade's total in these categories adds up to 100%.

#### **INITIATIVES FOCUSED ON FLN**

In 2021, Odisha made notable progress in advancing its foundational learning initiatives, showcasing a robust commitment

to enhancing foundational education outcomes statewide. The establishment of the FLN State Steering Committee (SSC) and State Project Management Unit (SPMU) signifies a dedicated effort toward effective governance and oversight of the FLN program. Additionally, the creation of FLN-specific District Project Management Units (DPMUs) in all 30 districts highlights a decentralized approach to program management and implementation. SCERT's presentation of the state's five-year perspective plan to the Ministry of Education in October 2021 demonstrates Odisha's dedication to long-term strategic planning and national collaboration to achieve significant improvements in foundational learning outcomes.

The State Education Department, supported by leading educational NGOs, has effectively prioritized FLN in the state.



Building on this momentum, Odisha launched several significant initiatives in 2022 aimed at preparing teachers and master trainers to enhance foundational learning outcomes further. The State Council of Education Research and Training (SCERT) developed a comprehensive teacher training module focused on effective

Teaching Learning Materials (TLM) utilization, equipping educators with essential skills and strategies. Additionally, a detailed cascaded training plan was meticulously crafted to train District Institutes of Education and Training (DIETs), followed by State Resource Groups and Cluster Resource Coordinators (CRCCs), facilitating the dissemination of best practices in foundational learning.

To ensure a smooth transition for Grade 1 students into formal education, SCERT introduced a School Preparedness Module (Vidya Pravesh), alongside a comprehensive baseline assessment to evaluate current learning levels. Furthermore, a Foundational Learning Study conducted in 2022 for Grade 3 students identified specific areas needing improvement and intervention. The emphasis on mentorship, support, and robust reporting and compliance mechanisms underscores Odisha's commitment to enhancing foundational learning outcomes and ensuring equitable access to quality education for all students.

#### **ENHANCING INITIATIVES FOR FOUNDATIONAL LEARNING**

In the academic year (AY) 2023-24, Odisha initiated a series of measures to strengthen foundational learning throughout the state. Following the finalization of Teaching Learning Materials (TLM), the Odisha State Education Planning Authority (OSEPA) organized a three-day teacher training session targeting faculties from District Institutes of Education and Training (DIETs), followed by Cluster Resource Centre Coordinators (CRCCs) responsible for teacher training. Simultaneously, a statewide baseline study for Grades 1 and 2 was analyzed to guide strategic interventions.

After a comprehensive state-level review meeting led by the Commissioner-cum-Secretary, Odisha introduced Monthly Sharing Meetings (MSM) for teachers at the cluster level. These meetings, attended by Headmasters (HMs), serve as platforms for DIETs to receive orientation from SCERT and subsequently provide training to CRCCs and HMs. Held every third Saturday since July 2023, these meetings are closely monitored by state and district officials. Over the past eight months, they have become crucial for enhancing foundational learning practices, offering continuous insights and content inputs from SCERT. Focused on empowering teachers with foundational literacy and numeracy (FLN) skills, these sessions cover various aspects including FLN concepts, utilization of FLN-

related TLM, live demonstrations, and refining classroom instructional techniques.

### **EFFECTIVENESS OF EDUCATIONAL POLICIES AND PROGRAMS ENHANCING FLN**

Educational policies and programs aimed at improving Foundational Literacy and Numeracy (FLN) in India, particularly in Odisha, have shown varying degrees of effectiveness in enhancing early education outcomes. These initiatives, including those under the National Education Policy (NEP) and state-specific programs like the Learning Enhancement Programme (LEP) in Odisha, aim to equip students with essential literacy and numeracy skills from an early age.

In India, the NEP 2020 emphasizes the importance of foundational learning as a critical pillar for future educational success. It advocates for early childhood care and education, integrated curriculum planning, and teacher training to enhance FLN outcomes nationwide. Odisha's Learning Enhancement Programme (LEP), launched in 2018, focuses on bridging learning gaps through targeted interventions such as Ujjwal, Utthan, and Utkarsh, which cater to different grade levels and learning needs. However, while these initiatives have made strides in curriculum development, teacher training, and resource allocation, challenges persist. Issues such as inadequate infrastructure, disparities in rural and urban education settings, and gaps in monitoring and evaluation hinder their full effectiveness. Moreover, the implementation of FLN-focused policies requires sustained efforts, adequate funding, and continuous adaptation to local contexts to ensure meaningful impact on student learning outcomes.

Moving forward, addressing these challenges and leveraging data-driven insights from ongoing assessments will be crucial. Enhancing collaboration between government bodies, educational institutions, and community stakeholders is essential for scaling successful FLN initiatives and ensuring equitable access to quality education across India and specifically in Odisha.

## **KEY FINDINGS ON FOUNDATIONAL LITERACY AND NUMERACY IN ODISHA**

- Significant disparities in foundational literacy and numeracy skills exist among Odisha students, as revealed by NAS 2017 and ASER 2018 assessments.
- A large percentage of Grade 3 rural students struggle with basic math (69%) and reading Grade 2 texts (61%), highlighting urgent intervention needs.
- Odisha has implemented initiatives like the Learning Enhancement Programme (LEP) and projects such as Ujjwal, Utthan, and Utkarsh to enhance foundational learning outcomes.
- The FLN State Steering Committee (SSC), State Project Management Unit (SPMU), and District Project Management Units (DPMUs) demonstrate Odisha's strategic approach to FLN program management.
- Training modules and plans involving DIETs and CRCCs aim to strengthen FLN practices at grassroots levels.
- Monthly Sharing Meetings (MSM) and data-driven assessments ensure ongoing monitoring and improvement of FLN outcomes.
- Infrastructural deficits, rural-urban disparities, and adapting FLN policies to local contexts remain challenges for Odisha.
- Future strategies prioritize infrastructure enhancement, improve teacher effectiveness, and leverage technology for scalable FLN interventions in Odisha's educational system.

## **CONCLUSION**

The study on foundational literacy and numeracy in Odisha provides valuable insights into the broader educational landscape of India, particularly concerning early-grade learning outcomes. It underscores the critical importance of addressing learning disparities and enhancing educational outcomes at early grade levels across the country. In Odisha, initiatives like the Learning Enhancement Programme (LEP) and specific interventions such as Ujjwal, Utthan, and Utkarsh have been instrumental in improving foundational skills among students. These efforts are supported by strategic bodies like the FLN State Steering Committee (SSC), State Project Management Unit (SPMU), and District Project

Management Units (DPMUs), which highlight Odisha's commitment to effective governance and decentralized management of educational reforms.

However, challenges such as infrastructural deficits and rural-urban disparities persist in both Odisha and throughout India, necessitating continued adaptation and innovation in FLN policies. Moving forward, there is a pressing need to prioritize infrastructure enhancement, teacher training, and the integration of technology to scale effective interventions nationwide. By addressing these challenges and leveraging existing strengths, India and Odisha can further advance their educational landscapes, ensuring equitable access to quality foundational education for all students.

#### REFERENCE:

Akshara Foundation. (n.d.). Ganitha Kalika Andolana (GKA). Retrieved from

<https://akshara.org.in/gka/>

Central Square Foundation. (n.d.). About Us. Retrieved from

<https://www.centralsquarefoundation.org/about-us/>

Department of School and Mass Education, Odisha. (2021). DIKSHA - ODISHA. Retrieved

from <https://diksha.gov.in>

Directorate of Teacher Education and State Council of Educational Research and Training

(TE and SCERT), Odisha. (2021). Academic Calendar in Literacy and Numeracy under FLN for class 1 to 3.

LLF-Annual-Report-2020-2021, pdf retrieved from

<https://languageandlearningfoundation.org/wp-content/uploads/2021/09/LLF-Annual-Report-2020-2021.pdf>

Ministry of Education. (2021). NIPUN Bharat: An initiative for universal acquisition of

foundational literacy and numeracy. Government of India.

[https://www.education.gov.in/sites/upload\\_files/mhrd/files/NIPUN-Bharat.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NIPUN-Bharat.pdf)

[https://www.education.gov.in/sites/upload\\_files/mhrd/files/nipun\\_bharat\\_eng1.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/nipun_bharat_eng1.pdf)

Ministry of Education. (2022). National Curriculum Framework for Foundational Stage.

Government of India. Retrieved from

[https://ncert.nic.in/pdf/NCF\\_for\\_Foundational\\_Stage\\_20\\_October\\_2022.pdf](https://ncert.nic.in/pdf/NCF_for_Foundational_Stage_20_October_2022.pdf)

Ministry of Education, Government of India. (2020). National Education Policy 2020.

Retrieved from

[https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf)

Mishra, P., & Yadav, P. (2018). E-learning in India: A study of technology-enhanced

learning initiatives and impact. *International Journal of Educational Development*, 59, 32-38.

Mohanty, R. P., & Routray, P. (2019). Role of non-governmental organizations in the

development of education in India. *Asian Journal of Multidisciplinary Studies*, 7(1), 10-19.

Sahu, S., & Sahu, S. K. (2017). Regional disparities in education: A case study of Odisha,

India. *International Journal of Education and Psychological Research*, 6(4), 74-80.

Singh, A., & Madheswaran, S. (2018). Educational disparities in India: A district-level

analysis. *Economic and Political Weekly*, 53(30), 73-80.

<https://vikaspedia.in/education/resource-links/state-of-foundational-literacy-and-numeracy-in-india>

<https://www.centalsquarefoundation.org/articles/fln-implementation-in-odisha-the-journey-so-far>

[https://img.asercentre.org/docs/ASER%202022%20report%20pdfs/State%20pages/6%20pages\\_English/odisha\\_19.pdf](https://img.asercentre.org/docs/ASER%202022%20report%20pdfs/State%20pages/6%20pages_English/odisha_19.pdf)

<https://timesofindia.indiatimes.com/city/bhubaneswar/odisha-launches-plan-to-hone-basic-literacy-skills-of-students/articleshow/86527646.cms>

<https://www.foundationalllearning.in/fln/>

<https://akshara.org.in/en/what-we-do/gka/>

<https://www.centalsquarefoundation.org/fln>

[https://www.education.gov.in/shikshakparv/docs/Foundational\\_Literacy\\_Numeracy\\_background\\_note.pdf](https://www.education.gov.in/shikshakparv/docs/Foundational_Literacy_Numeracy_background_note.pdf)

<https://squarepandaindia.medium.com/foundational-literacy-and-numeracy-skills-for-an-atmanirbhar-india-b4a7009c5c78>