

**ASSESSING THE EFFECTIVENESS OF LEARNING ENHANCEMENT PROGRAM ON  
IMPROVING CLASSROOM PERFORMANCE OF CLASS-3 STUDENTS**

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**ABSTRACT**

In the pursuit of enhancing educational outcomes, this research investigates the effectiveness of Learning Enhancement Program (LEP) on improving the classroom performance and foundational literacy & numeracy of Class-3 students in Jagatsinghpur district of the state of Odisha. Employing a descriptive survey method, the study utilizes questionnaires, baseline assessment test sheets, and endline assessment test sheets to evaluate the impact of the intervention. Through a meticulous random sampling approach, 10 clusters (5 from each of the two selected blocks) are selected within the district. From each cluster, two schools are chosen, and a total of 80 students (comprising two boys and two girls from Class-3 in each school) participate in the study. Statistical analyses, including percentage, t-ratio, and mean, are employed to analyze the data collected from both baseline and endline assessments. By comparing pre- and post-intervention performance levels, the study aims to ascertain the effectiveness of the learning enhancement program in fostering academic improvement among Class-3 students. The research title, "Assessing the Effectiveness of Learning Enhancement Program on Improving Classroom Performance of Class-3 Students," encapsulates the primary objective of evaluating the program's impact. The findings of this study hold significant implications for educational policy and practice, offering insights into the efficacy of targeted interventions in elevating learning outcomes at the primary level.

**KEYWORDS**

Learning Enhancement Programme (LEP), Effectiveness, Baseline Test, Endline Test, Foundational Literacy & Numeracy (FLN)

**INTRODUCTION**

The efficacy of learning enhancement programs (LEPs) in bolstering academic performance, particularly among vulnerable student populations, is a critical concern within the educational landscape. In Odisha, India, where

educational challenges persist, assessing the impact of such interventions is paramount. This study delves into the effectiveness of an LEP tailored for Class-3 (FLN Grade) students in Odisha, focusing on its influence on classroom performance and foundational literacy and numeracy (FLN) skills. In the pursuit of improving academic outcomes, especially for FLN Grade students, Odisha launched the LEP in 2018. This program, aligned with the "Teaching at the Right Level (TaRL)" concept, aims to cater to students' actual learning levels rather than conforming to standard grade-based curricula. Implemented across government schools, the LEP comprises three distinct programs: Ujjwal (Classes 1-5), Utthan (Classes 6-8), and Utkarsha (Class 9). Each program incorporates a 40-day remediation Learning Camp at the academic year's outset, supplemented by periodic remedial sessions throughout. FLN Grade students, particularly those from rural backgrounds, encounter formidable academic barriers, compounded by limited access to quality education. The LEP for Class-3 students in Odisha is strategically crafted to address these challenges. Through tailored interventions such as one-on-one tutoring, group study sessions, and after-school support, the program endeavors to bolster students' FLN skills and classroom performance. Research into the LEP's effectiveness extends beyond mere academic metrics to encompass students' attitudes toward learning. By evaluating shifts in motivation and self-esteem, this study seeks to offer holistic insights into the program's impact. Amidst the broader educational landscape, the study's findings carry significant implications. Success in Odisha's LEP could serve as a model for scalable interventions, contributing to the reduction of educational disparities and the enhancement of overall learning outcomes, particularly for FLN Grade students. Additionally, aligning with national educational frameworks, including the National Education Policy (NEP) 2020 and the National Curriculum Framework (NCF), underscores the program's commitment to foundational learning principles.

In summary, this research endeavours to evaluate the effectiveness of the LEP for Class-3 FLN Grade students in Odisha, shedding light on its potential to address educational inequities and foster academic success within the state's educational landscape.

## LITERATURE REVIEW

Several studies have explored early literacy and numeracy interventions in the context of elementary education, aligning with the principles outlined in the National Education Policy (NEP) 2020. Mishra (2009) investigated the impact of incentives and interventions under NPEGEL on promoting girls' education in Odisha, revealing district wise variations in teacher training attendance and fund utilization, with some districts demonstrating better academic performance among girls. Pati and Behera (2011) examined the effectiveness of an Activity Based Learning (ABL) approach in developing reading comprehension skills, emphasizing joyful classroom experiences and collaborative learning methods resulting in enhanced reading skills among students. Roul (2017)

evaluated the impact of the Sahaja Programme on basic skills of elementary school children, demonstrating positive effects on language and mathematics skills through stratified random sampling. Pereira and Anil Kumari (2010) conducted a study on stimulating pre-reading skills of pre-scholars, showcasing effective development of pre-reading skills among children in a rural school in Kerala. Additionally, Prakash and Shrama (2010) explored the influence of gender and area on Mathematics Attainment in Class-V students, revealing better mathematics competency among rural students compared to urban students. Panda (2018) assessed the quality of school education in Odisha, revealing alarming rates of students unable to perform basic reading, writing, and arithmetic tasks across various grade levels. Yadav (2022) investigated the effectiveness of a differentiated Instruction Programme using ICT on achievement in Mathematics, uncovering moderate smartphone addiction among educational stakeholders during the COVID-19 pandemic, with variations based on region. These studies collectively contribute to addressing the foundational literacy and numeracy goals outlined in NEP 2020, aiming to enhance the quality of elementary education and improve learning outcomes for students.

## **OBJECTIVES**

1. To study the effect of learning enhancement program on the academic performance of Class-3 students.
2. To study the effect of learning enhancement program on the academic performance of Class-3 students in the subject of Odia.
3. To study the effect of learning enhancement program on the academic performance of Class-3 students in the subject of Mathematics.
4. To determine whether the learning enhancement program has a positive impact on the academic performance of Class-3 students in both the subjects of Odia & Mathematics.

## **HYPOTHESES**

1. The learning enhancement program will have significant positive effect on the academic performance of Class-3 students in the subject of Odia.
2. The learning enhancement program will have significant positive effect on the academic performance of Class-3 students in the subject of Mathematics.

## **DELIMITATIONS**

The delimitations of the study are as follows:

1. The study is confined to Jagatsinghpur District.
2. Only Class-3 students are included in the study.

3. The focus is solely on assessing academic performance in the subjects of Odia and Mathematics.
4. The sample size is limited to 80 students.

## **METHODOLOGY**

The present study utilizes a mixed-methods research design, incorporating both quantitative and qualitative data collection techniques. This approach aims to offer a thorough analysis of the Learning Enhancement Program (LEP) and its effects on the classroom performance of Class-3 students.

## **POPULATION AND SAMPLE**

The study concentrates on Jagatsinghpur district, selecting two blocks out of eight. Using random sampling, 10 clusters (5 from each block) will be chosen from the district's 115 clusters. From each cluster, two schools are selected, and from each school, four Class-3 students (two boys and two girls) are taken into account, totalling 80 students in the sample.

## **TOOLS USED**

The study uses the following tools for data collection:

1. Student Questionnaire: Gathers qualitative insights on student experiences with the LEP.
2. Baseline Assessment Test Sheet: Provides quantitative measures of initial academic performance.
3. Endline Assessment Test Sheet: Measures changes in academic performance post-LEP exposure.

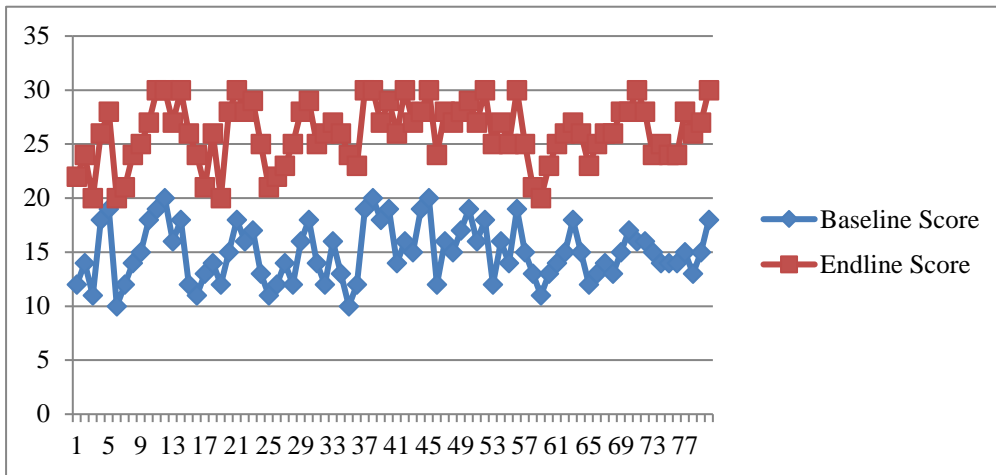
## **STATISTICAL TECHNIQUES USED**

To analyze the data, the study employed the following statistical techniques:

1. The t-ratio compared the means of different groups, such as students' academic performance before and after exposure to the LEP.
2. Percentage analysis quantified the proportion of students showing improvements in academic performance post-LEP participation. The research methodology ensured a comprehensive and systematic approach to assessing the impact of the LEP on Class-3 students' classroom performance in Jagatsinghpur district.

## **RESULTS AND ANALYSIS**

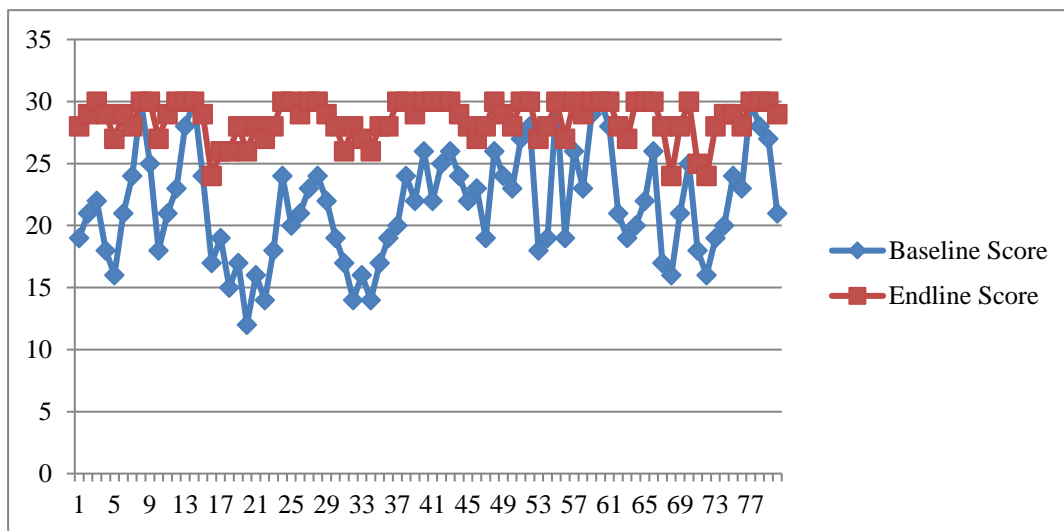
### **Academic Performance in Language (Odia) of Class-3 Students - Baseline vs. Endline Tests**



**Figure-1 Academic Performance in Language (Odia) of Class-3 Students - Baseline vs. Endline Tests**

The analysis revealed significant improvement in language (Odia) skills among Class-3 students, attributed to targeted approaches in reading and writing. Students enhanced comprehension through activities like picture reading and engaging with newspapers, while practical exercises improved handwriting and creative expression. Activities included arranging sentences, writing on various surfaces, and contributing to daily boards, fostering consistent practice and skill development. The diverse approaches, such as picture reading and sentence construction, effectively addressed skill gaps and created a comprehensive language learning environment.

**Academic Performance in Mathematics of Class-3 Students - Baseline vs. Endline Tests**



**Figure-2 Academic Performance in Mathematics of Class-3 Students - Baseline vs. Endline Tests**

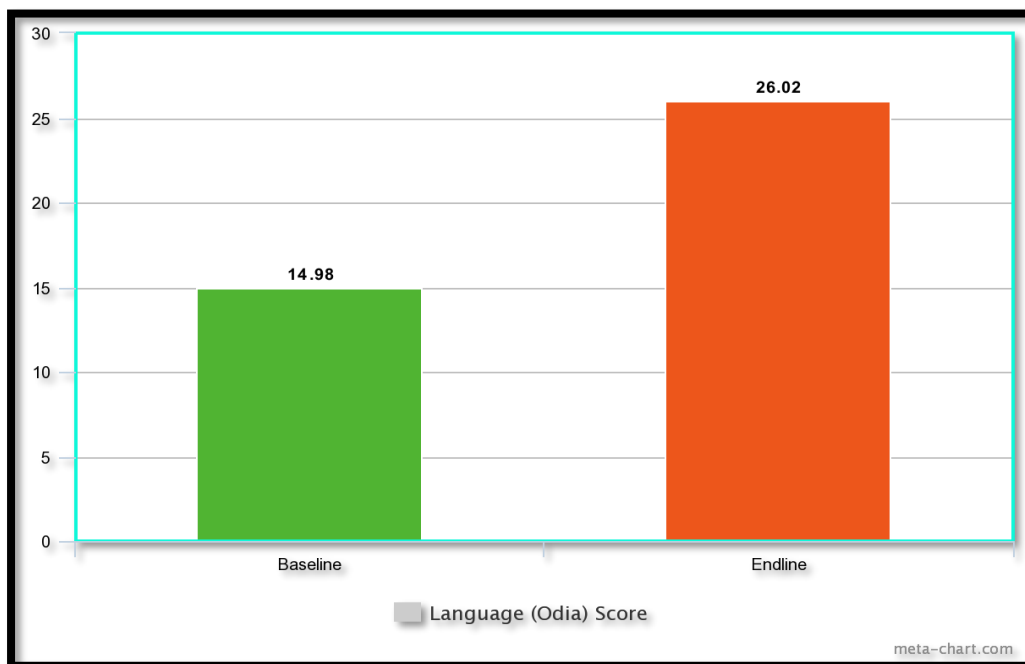
Class-3 students showed significant improvement in mathematics academic achievement, attributed to organized activities targeting fundamental skills. These activities included recognizing angles, practicing multiplication

tables, and understanding fractions through diagrams. Students identified angles in classroom corners, visually understood angle changes through folding, and engaged in interactive multiplication drills. These activities fostered a comprehensive learning environment and contributed to substantial mathematical performance enhancement.

**Table-1 Comparative Analysis of Learning Achievement in Language (Odia) - Baseline vs. Endline Test**

Sl. No	Test	N	Mean	SD	SE	t value	Remarks
1	Baseline Test	80	14.98	2.631	0.294	3.301*	Significant
2	Endline Test	80	26.02	2.837	0.317		

The table shows a significant increase in the mean score of the Endline Test in Language (Odia) compared to the Baseline Test, with a mean difference t-value of 3.301 ( $p < 0.01$ ,  $df=79$ ). This indicates a positive effect of the Learning Enhancement Programme (LEP) on students' academic achievement in language (Odia).

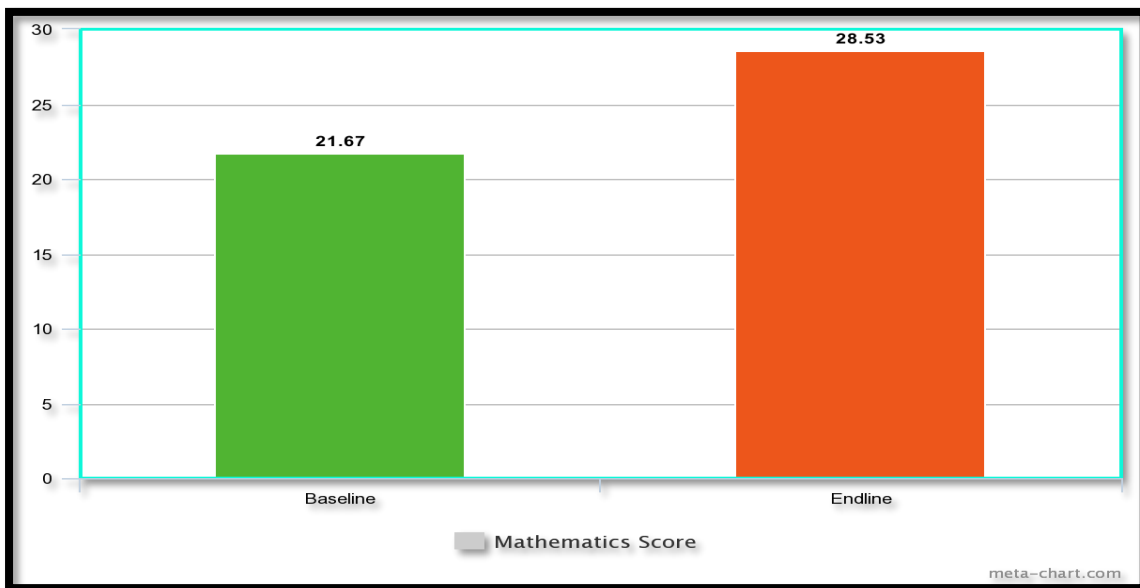


**Figure-3 Comparative Analysis of Learning Achievement in Language (Odia) - Baseline vs. Endline Test**

**Table-2 Comparative Analysis of Learning Achievement in Mathematics- Baseline vs. Endline Test**

Sl. No	Test	N	Mean	SD	SE	t value	Remarks
1	Baseline Test	80	21.67	4.400	0.492	2.295*	Significant
2	Endline Test	80	28.53	1.590	0.178		

The table illustrates that the mean score of the Endline Test in Mathematics (28.53) surpasses the mean score of the Baseline Test (21.67). The mean difference in t-value (2.295) is significant at both the 0.05 (1.96) and 0.01 (2.58) levels, with a degree of freedom (df) of 79. Consequently, a significant difference exists between the mean achievements of the Baseline and Endline Tests in Mathematics after intervention. This suggests that the Learning Enhancement Programme (LEP) positively impacts the academic achievement of sample students in mathematics.



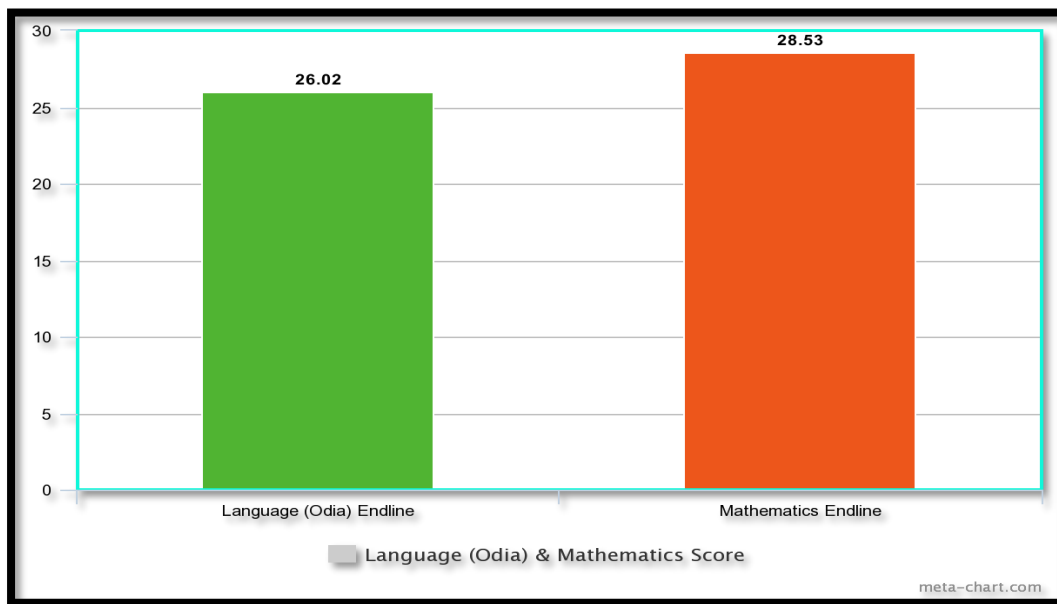
**Figure-4 Comparative Analysis of Learning Achievement in Mathematics- Baseline vs. Endline Test**

**Table-3 Comparison of learning achievement of students in both Language (Odia) & Mathematics- Endline Test Results**

Sl. No	Test	N	Mean	SD	SE	t value	Remarks
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<b>1</b>	<b>Endline Test (Odia)</b>	80	26.02	2.837	0.317	5.658	Not Significant
<b>2</b>	<b>Endline Test (Mathematics)</b>	80	28.54	1.591	0.178		

The table indicates that the mean score of the Endline Test in Mathematics (28.54) exceeds the mean score of Language (Odia) (26.02). However, the mean difference in t-value (5.658) is not significant at either the 0.05 (1.96) or 0.01 (2.58) level, with a degree of freedom (df) of 79. Consequently, the mean achievement of the Endline Test in Mathematics is better than that of Language (Odia) after intervention. This suggests that the Learning Enhancement Programme (LEP) has a more positive effect on sample students' academic achievement in mathematics compared to language (Odia).



**Figure-5 Comparison of learning achievement of students in both Language (Odia) & Mathematics-Endline Test Results**

**MAJOR FINDINGS OF THE STUDY**

- The Learning Enhancement Program (LEP) demonstrated a significant positive impact on Class-3 students' academic performance overall, indicating its effectiveness in improving learning outcomes.
- Subject-specific analysis revealed notable advancements in both Odia language and Mathematics, showcasing the program's influence across diverse subjects.



- Mathematics exhibited a more pronounced improvement compared to Odia language, highlighting the LEP's effectiveness in enhancing numerical and analytical skills.
- Successful implementation strategies, including activities like picture reading and practical math applications, were associated with improved academic performance, emphasizing the importance of engaging teaching methods.
- Increased classroom participation among students exposed to the LEP contributed to a more dynamic learning environment, fostering a positive atmosphere for academic growth.
- The program's ability to address diverse learning styles through activities like picture reading and hands-on math applications ensured inclusivity, catering to the individual needs of students.
- Integration of practical applications, such as recognizing angles and engaging in hands-on math exercises, played a crucial role in enhancing conceptual understanding and academic progress.

## CONCLUSION

The chapter explores the significant findings and educational implications of the research, emphasizing the positive impact of the Learning Enhancement Program (LEP) on Class-3 students' academic performance in Odia and Mathematics. Successful strategies, including interactive learning methods and curriculum alignment, are highlighted, underlining the importance of teacher-student engagement. The findings provide a roadmap for on-going improvements in the LEP's implementation, emphasizing the need for dynamic adaptation to evolving educational needs. Continuous refinement of pedagogical approaches ensures the program's sustained positive impact on students.

## REFERENCES

- Aggarwal, Y. & Kusum, K. Premi (1998), *Reforming School Education: Issues in Policy Planning and Implementation*, Vikas Publishers, New Delhi.
- Agrawal, J. & Gupta, C.S. (2011), *Curriculum Development 2005 forwards learning without burden and quality of education An evaluation*, Shipra Publication, Delhi.
- Chaturvedi, A. (2022), *National Education Policy-2020*, Yojana, New Delhi, Vol-66, No-2, February.
- Das, M. (2008), *A Study on Effectiveness of/Activity Based classroom teaching in multi-grade Situation in primary Schools of Kalahandi District*, Research Project Report, OPEPA, Bhubaneswar.
- Govt. of Odisha (2012), *Textbook of Odisha and Math. Text book in class-v* Dept. of school and mass education, Odisha.
- Govt. of Odisha (2003), *vision 2020, an agenda for school and mass education Report of the task force*, Dept. of school & mass education, BBSR.

- [https://ncert.nic.in/pdf/announcement/Learning\\_%20Enhancement\\_Guidelines.pdf](https://ncert.nic.in/pdf/announcement/Learning_%20Enhancement_Guidelines.pdf)
- Learning Enhancement Program (LEP) in Odisha: <https://www.dheodisha.gov.in/lep.aspx>
- MHRD (2020), National Education Policy 2020 .New Delhi: Government of India.
- Mishra, S.P. & Das, M. (2017), Impact of Ujjwal programme for Quality Development of Elementary School of Jagatsinghpur, Director, TE & SCERT, Odisha, Bhubaneswar.
- MoE (2021), *National Initiative for Proficiency in Reading with Understanding and Numeracy -2021*, Department of school education and literacy ,Govt. of India, New Delhi.
- NCERT (2017), Learning Outcome at Elementary Stage, New Delhi.
- OPEPA (2018), Teacher Handbook Marketing, Odisha, Bhubaneswar. Ujjwal & Utthan, Textbook Production & Marketing, Odisha, Bhubaneswar.
- OSEPA, (2019), Samagra Shiksha, Odisha Annual Report, Bhubaneswar.
- Panda, D. (2014), Impact of pedagogical Programme of SSA on Development of Girls Education in Odisha, Journal of Teacher Education and Research Vol-9 No. 1 June.
- Rath, P.K. and etal (1998), A study on effectiveness of Co-operative learning Approach in Learning Mother Tongue (Odia) Class-III students, Odisha OPEPA , Bhubaneswar.
- Roul, K. (2016), Impact of Sahaj Programme on Development of Basic Skills of Learners in Language and Mathematics of Elementary School Children, Directorate, TE & SCERT, Odisha, Bhubaneswar.
- Shrama, R. (2022), NIPUN Bharat Mission, Primary Learning, Yojana, February, New Delhi.
- Singh, A.K. (2022), NEP-2020 Vision and Pathways, Reforming Education, Yojana, February, New Delhi.
- World Bank (1997), Primary Education in India, Development in Practice Series, World Bank, Washington.
- Yadav, S.K. (2012), Impact of in-service teacher training on classroom transaction. A Report by Department of Education, NCERT, New Delhi.