Assessment of Reading Competencies of Students, School and Classroom Environment in Intervention Schools of Uttar Pradesh and Odisha (2014-2018)

Start Early: Read in the Project CARE India

THE PROJECT

Start Early: Read in Time is a CARE India Solution for Sustainable Development (CISSD) initiative in select districts of Uttar Pradesh and Odisha with an overall goal of improving “early grade reading skills of children (6-9 years of age), especially girls from marginalized Dalit and Adivasi communities, in formal primary schools in Odisha and Uttar Pradesh”. The project has been implementing innovative techniques in three districts in UP and one in Odisha since 2014 and extended to two more districts in UP and Odisha in 2016.
Key principle-based approaches of the project are:

1. **DEVELOP SCHOOL AS AN ENABLING SYSTEM** that promotes learning and equitable environment for all children.

2. **DEVELOP TEACHER AS A CATALYST THROUGH** building their teaching capacities, enhancing their sensitivity, and creating an enabling teacher support system, so that the teacher is aware of children’s diverse backgrounds, cultures and languages.

3. **CONTINUOUS MEASUREMENT OF LEARNING LEVEL, SPECIFICALLY READING COMPETENCE OF CHILDREN AGAINST** a set of reading specific indicators for different grades of primary schooling. The assessments are integrated in the classroom processes and are used by teachers to understand children’s needs.

4. **DEVELOPMENT AND USE OF BI-LINGUAL CONTEXTUAL READING RESOURCES** to ensure access and exposure to a variety of print materials in schools and communities, based on the local culture and language of children.

5. **CREATE READING CULTURE IN THE COMMUNITY** through community libraries for both children and adults. Adults are encouraged to read with and for children.

The project it reached approximately 140,000 students in grades 1 to 4 of over 1000 government schools (Bahraich, Balrampur, Shrawasti, Gonda and Hardoi (UP, Mayurbhanj, Dhenkanal and Keojhar (Odisha). It also undertook training of more than 2000 primary school teachers and 250 education functionaries in the two states. The initiative worked with 96 cluster resource centres to build these up as exchange forums for teachers. The project is supported by USAID and other private sector partners.
THE IMPACT STUDY

CARE India, through a third party*, conducted a baseline and endline study in 2015 and 2018 respectively to mean impact of the project. Both studies were conducted in the four districts under the program, namely-Bahraich, Balrampur and Shravasti in UP and Mayurbhanj in Odisha. The impact studies focused on measuring children reading abilities, teacher attitude and aptitude, school environment and SMC.

A modified and grade specific tool based on Early Grade Reading Assessment (EGRA) tool was used to measure reading skills of children. An inventory for school environment was used to measure quality of school environment while item based self-assessment method was to measure teachers’ attitude and aptitude.

In end line, a representative sample of 2127 was drawn from grades I to IV students 212, of which 1595 were in UP and 532 in Odisha. The students included 50% male and 50% female students predominantly from marginalized communities such as Dalits and Adivasis. School and classroom environment, school and classroom observations were conducted at 56 schools and 85 language classes. Additionally, 107 teachers were interviewed using a self- administered tool to assess their understanding on EGR and gender sensitivity. A similar self-administered tool was used to understand the knowledge and skills of the 14 CRCCs and 8 BRPs in the project area of the select districts. Interviews were conducted with the state, district and block level officials to understand the system level impact of the project.

KEY FINDINGS

Learning Outcomes

To assess a learner’s overall progress in reading ability, the research framework covered five competencies associated to one’s reading skills, namely- phonemic awareness, phonic awareness, comprehension (listening and reading), reading fluency and independent writing.

Individual scores were calculated for each of the students covered in the study and subsequently an average score for each grade. The endline study shows a significant increase in the grade-wise reading scores from the baseline. The reading score for grade I increased 30% since 2015, from 28% to 58%; grade II increased 22% from 34% to 56%; grade III increased from 45% to 64% (19%); and grade IV from 49% to 69% (20 percentage points).

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Year</th>
<th>UP (Average score in %)</th>
<th>ODISHA (Average score in %)</th>
<th>OVERALL (Average score in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade I</td>
<td>2018</td>
<td>49</td>
<td>67</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>51</td>
<td>63</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>36</td>
<td>43</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>18</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Grade II</td>
<td>2018</td>
<td>50</td>
<td>62</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>53</td>
<td>66</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>39</td>
<td>47</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>25</td>
<td>42</td>
<td>34</td>
</tr>
<tr>
<td>Grade III</td>
<td>2018</td>
<td>56</td>
<td>71</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>61</td>
<td>63</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>48</td>
<td>60</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>29</td>
<td>60</td>
<td>45</td>
</tr>
<tr>
<td>Grade IV</td>
<td>2018</td>
<td>66</td>
<td>72</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>65</td>
<td>73</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>50</td>
<td>65</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>35</td>
<td>63</td>
<td>49</td>
</tr>
</tbody>
</table>

*Karrak Enterprise Dev Service Private Limited
The State specific results were:

**Percentage of students competent in reading with comprehension in Uttar Pradesh - Grade II and Grade IV**

- Grade IV:
  - Endline (2018): 59%
  - Baseline (2015): 27%

- Grade II:
  - Endline (2018): 9%
  - Baseline (2015): 25%

**Percentage of students competent in reading with comprehension in Odisha - Grade II and Grade IV**

- Grade IV:
  - Endline (2018): 50%
  - Baseline (2015): 27%

- Grade II:
  - Endline (2018): 45%
  - Baseline (2015): 23%
Changes in School and Classroom Environment

School Environment

There is an increase in the percentage of schools with toilets available and used for girls from the baseline, although prevailing levels remained low. In UP, the percentage increased from 28% to 48% from 2015 to 2018 and in Odisha the increase was from 36% to 64%. There was an increase in availability of drinking water in both states. The percentage has reached 93% in UP, however, it remains low in Odisha at 71%.

Timetable

There is a rise in the percentage of schools maintaining time tables in both states. In UP, the percentage increased from 34% in the baseline to 67% in endline (increase of 33 percentage points). While in Odisha, the increase was of 21 percentage points, from 50% in 2015 to 71% in 2018. Further, 93% of schools were found to be using the timetables on the day of the survey in Odisha, and only 41% of the schools in UP. Additionally, 52% of the time tables had included a reading period in UP and 86% in Odisha.

Equal opportunities and democratic forums to children

There has been an increase in the availability of equal opportunities and democratic forums in schools. Thus, at the end of the project, 41% of the schools in UP and 57% in Odisha reported having a minimum of 4 child committees. Further, 48% of the schools in UP and 71% in Odisha reported having democratically formed child committees.

Availability of reading resources for children

During the endline study, schools in both UP and Odisha were found to have a variety of reading resources appropriate for students present and used in the school.

Print-rich Environment

During the endline, 64% of the schools in UP and 100% schools in Odisha had a print-rich environment in schools. The percentage of schools where the display is placed too high to be visible to students has reduced from the baseline to the endline. Overall, schools had a variety of print rich resources present, 43% of the schools had teacher led learning materials in UP and 71% in Odisha. 57% of the schools in both states had poems, rhymes on walls or charts. 57% had story displayed in UP and 64% schools in Odisha. 76% of the schools in UP and 100% Odisha had number charts.
Teaching Methodologies

There is a significant change visible in the variety of teaching techniques observed in the baseline and endline in the classrooms. The following table presents the percentage of teachers using different teaching methodologies in a language class.

Overall, lecturing, explanation and questioning continues to be the most commonly observed technique used for teaching in classroom in the end line as it was in the baseline. However, use of non-traditional techniques such as guided discussion, peer reading, oral activity, role playing have also increased significantly. In UP, methods such as guided discussion, role play, peer reading and oral activity have increased from the baseline by 40, 32, 33, 31 percentage points receptively. In Odisha, the highest increase is seen in guided discussion which is of 20 percentage points, there is an increase of 18 percentage points in games played while teaching and oral activity as well.

**TABLE 2: Teaching methodologies observed in classrooms**

<table>
<thead>
<tr>
<th>Variety of teaching methodologies</th>
<th>Uttar Pradesh</th>
<th>Odisha</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Endline (N=66)</td>
<td>Baseline (N=58)</td>
<td>Endline (N=19)</td>
</tr>
<tr>
<td>Explain /Lecture/ questioning</td>
<td>85</td>
<td>69</td>
<td>89</td>
</tr>
<tr>
<td>Guided Discussion</td>
<td>56</td>
<td>16</td>
<td>63</td>
</tr>
<tr>
<td>Role Play</td>
<td>32</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>Games played while sitting</td>
<td>6</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>Peer Reading</td>
<td>47</td>
<td>14</td>
<td>68</td>
</tr>
<tr>
<td>Oral activity</td>
<td>76</td>
<td>45</td>
<td>89</td>
</tr>
<tr>
<td>Other Method</td>
<td>56</td>
<td>16</td>
<td>58</td>
</tr>
</tbody>
</table>

Teacher’s gender sensitivity

On average, the percentage of teachers naming girls in the top five positions in class has increased in the endline, in comparison to the baseline. This is increase is evident in both states in the study.
Systemic Strengthening

Strengthening leadership and concepts of EGR of education functionaries at decentralized level

CARE India has adopted a teacher development model in select clusters in the program where CARE India’s staff plays a supportive role to the Cluster Resource Centre Coordinator (CRCC) in facilitating the monthly cluster meetings at state allotted CRC centres. The focus of these meetings is to improve the knowledge and skills of teachers on early grade reading while also sensitizing them towards concepts of gender equity and safety and security in education. This support has resulted in an improvement in leadership skills exhibited by the NPRCs which is appreciated by the block and district administration. It is felt by the administration that the monthly training given by the NPRCs is far more effective than the occasional block level trainings conducted for teachers. This is a change from their original responsibilities as NPRC, while earlier, their duties were restricted to administrative coordination between the block and school level, after the trainings attended at the state level and continuous support of the CARE team, they have become well trained in the concepts of EGR as well. NPRCs in both states acknowledge their personal and professional growth due to the program. The perception of NPRCs regarding the CARE India’s intervention is, however, different in both states.

Improving quality of education, specifically early literacy

The CARE India intervention is seen to be improving the quality of education in the project schools. The materials provided by CARE India to create a print rich environment in school is recognized by most government officials as the one of the most effective aspects of the CARE India intervention. Further, the morning assembly, also known as bal sabha, is found to have a positive impact on students’ confidence and participation in the schools.

Supportive role to local administration in community level mobilization programs

The CARE India team is appreciated by the district and block level teams (Shrawasti and Bahraich) for making themselves available and participating in all education related events happening at the block or district level.
System Strengthening at state level- CARE India has played an integral role supporting the state education department in UP since 2011 and has made a distinct impact for EGR at the state level. Aspects of the CARE India intervention that are being approved for upscaling at the state level, albeit in a phased manner are as follows:

1. Early language & literacy position paper developed in three languages was released by MHRD. It is one of the reference documents used by other institutions for language development.

2. CARE India has played a pivotal role in development of the SCERT training module for in-service training of teachers in UP on the topic of Early grade Reading (including numeracy and Hindi language). This module has already been used to train 20 state resource persons and 300 master trainers spread across 75 districts in the state and have completed their training on this.

3. The assessment register used by project in the select program districts, influenced adoption of reading specific learning outcomes in the UP state.

4. In UP, the government has allotted funding from the Padhe Bharat Badhe Bharat program to supply its reading resources and print rich material to 9000 schools.

5. The state has also issued a directive to hold 60 minute language classes in all primary schools in UP and 90 minute language classes in Odisha.

6. Other activities including a 40 minute morning assembly to be held in all primary schools in the state in the next 4-5 years, it will be scaled up to all over the state including activities that include expression.

7. The education department in UP appreciates the CARE India pilot of Teacher Resource Lab (TRL) for inculcating a spirit of scientific thinking among students.