IMPROVING EARLY GRADE READING IN FOOD INSECURE COMMUNITIES

RESULTS FROM 2015-2017 SYNCHRONOUS SCHOOL FEEDING AND LITERACY INTERVENTION

IMPACT OVERVIEW

Goal
» Improve early grade reading outcomes in food-deficit areas of Far- and Mid-Western Development regions

Duration
» January 2015 - December 2017

Project Coverage
» Baitadi, Bajhang, Dadeldhura, Dailekh, Darchula, Jajarkot districts
» 97,811 Grade 1 to Grade 3 students reached in 1,040 schools across 156 VDCs

Outcomes
» Dramatically improved reading skills (fluency and comprehension) among students in project districts
» Engaged parents to increase their investment in children’s education
» Increased classroom access to early grade reading materials
» Strengthened teacher and local government capacity to support early grade reading outcomes

Partners:
» World Food Programme Nepal
» Panch Tara Yuva Samrakshyak Manch
» Multipurpose Development Society
» Saipal Development Society
» Sustainable Agriculture and Environment or Water Source Conservation Center
» Social Awareness and Development Association
» Community Rural Development Society-Nepal

Since 2015, World Education Nepal has partnered with the World Food Programme (WFP) to improve reading outcomes among Grade 1–Grade 3 students in six Far-Western and Mid-Western food insecure districts that have generally poor educational outcomes. Results from the 2017 Early Grade Reading Assessment (EGRA) indicate that the collaborative effort to improve students’ ability to learn by addressing nutrition while simultaneously improving the quality of instruction has led to impressive results with a high return on investment: At baseline, only 1% of Grade 3 students could read at grade level; after two years, a majority of students can.

Under the Ministry of Education’s School Meals Programme, World Education delivers Early Grade Reading interventions in 1,040 schools in Baitadi, Bajhang, Dadeldhura, Dailekh, Darchula and Jajarkot to complement WFP’s student meal distribution. WFP and the Ministry of Education’s Food for Education Project jointly implement the SMP, which is funded by the U.S. Department of Agriculture. Within the SMP, Early Grade Reading activities are designed to improve children’s reading and comprehension competencies, enhance teachers’ instructional skills, and increase parental and community engagement to promote a culture of reading.

Prior to the start of Early Grade Reading activities, the SMP was raising attendance rates without improving learning outcomes. Since the 2015 baseline, the proportion of Grade 3 students reading on grade level has increased from 1% to 54%. World Education activities are low cost and high impact, accounting for only 7% of the overall SMP budget. In addition to impressive EGRA results, other evidence of the project’s impact includes higher rates of parental and community engagement with children’s reading and increased support to teachers.
The U.S. Department of Agriculture-supported School Feeding Programme in Nepal combines a mid-day meal for students, activities to bolster Early Grade Reading outcomes, and initiatives to improve sanitation and hygiene. World Education leads the Early Grade Reading component, which comprises 7% of the overall program and aims to improve reading skills.

### Early Grade Reading Activities

The project utilized the Read-Learn-Know program model, developed by World Education and the Rato Bangla Foundation. The model builds teachers’ knowledge and skills, strengthens the government system to support Early Grade Reading initiatives and outcomes, mobilizes parents and communities to promote a culture of reading, and provides materials to make literacy instruction fun for children and easier for teachers.

The project implemented the same early grade reading support in all schools, across all districts. While the program focuses on Grades 1, 2 and 3, students in higher grades through access to reading materials and support to promote reading through melas (reading fairs) and parental engagement.

### Assessment Methodology

#### Overview of Early Grade Reading Assessment

World Education conducted the Early Grade Reading Assessment (EGRA) in project districts to measure the intervention’s year-over-year progress in boosting children’s literacy outcomes. The EGRA is a research-based individual oral assessment that aims to assess the foundational literacy skills of children in Grades 1, 2, and 3. It is administered to students at the end of each school year to measure their fluency (correct words per minute, or CWPM) and comprehension.

#### Evaluation Sampling

World Education and partners administered the 2017 EGRA to 4,456 students in Grades 1–3 in one school in each of the 156 VDCs where the project operates. To ensure valid results, the same schools, and nearly all the same students, participated in the 2016 (n= 4,518) and 2017 (n= 4,456) assessments, while the 2015 baseline, conducted by Kimetrica, surveyed exclusively Grade 3 students (n= 866). In this evaluation, Grade 3 targets match GON targets (45 correct words per minute and 80% comprehension), and World Education developed targets to track progress for Grades 1 and 2. Full targets are listed at right.

#### Data Collection

The use of software on Android tablets to administer the EGRA questionnaire allowed for online and offline data collection. The content in the questionnaire, which received approval by the Education Review Office, was based on the Grade 1–3 textbooks and reading materials used in project schools. It included sections to test students’ competencies in listening, paragraph reading, paragraph comprehension, story reading, and story comprehension, as well as mastery of consonants, vowels, simple words, joint words, matras, and word meaning.

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### Reading Achievement Levels

<table>
<thead>
<tr>
<th>Achievement Level</th>
<th>LEVEL TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade 1</td>
</tr>
<tr>
<td>Children who read fluently with full comprehension</td>
<td>CWPM</td>
</tr>
<tr>
<td>Comprehension</td>
<td>3+/6</td>
</tr>
<tr>
<td>Children who read with increasing fluency and comprehension</td>
<td>CWPM</td>
</tr>
<tr>
<td>Comprehension</td>
<td>2+/6</td>
</tr>
<tr>
<td>Children who read slowly with limited comprehension</td>
<td>CWPM</td>
</tr>
<tr>
<td>Comprehension</td>
<td>1+/6</td>
</tr>
<tr>
<td>Children who have not yet begun to read</td>
<td>CWPM</td>
</tr>
<tr>
<td>Comprehension</td>
<td>0</td>
</tr>
</tbody>
</table>
**Key Result: Dramatic Gains in Reading Achievement**

**Large Increase in Proportion of Students Reading at Grade Level**

Overall, the project delivered impressive gains in reading achievement in some of Nepal’s poorest and most disadvantaged communities. In 2017, after two academic years of interventions, 16% of Grade 1, 39% of Grade 2 and 54% of Grade 3 students read fluently and with full comprehension. In comparison, just 1% of Grade 3 students surveyed in a 2015 baseline met reading standards. Compared to the 2016 EGRA (after one year of intervention), the proportion of Grade 1 students reading at grade level tripled; the proportion of Grade 2 students more than doubled; and the proportion of Grade 3 nearly doubled.

**Far Fewer Students Cannot Read at All**

The number of students who could not read also declined dramatically from 2016 to 2017. It fell from 64% to 41% for Grade 1; from 27% to 11% for Grade 2; and from 11% to 5% for Grade 3.

**Additional 2017 EGRA Findings**

**Reading achievement varies across districts**

As shown at right, the proportion of students meeting each of four achievement levels differs across districts. Students in Darchula, Dadeldhura, and Dailekh consistently showed the best results across grades. Few, if any, Grade 2 and 3 students in these districts “have not yet begun to read.” Jajarkot showed the poorest results, with significant room for improvement, while Baitadi and Bajhang were in middle of the six districts’ achievement spectrum. The combination of factors contributing to poor results among children in Jajarkot is unknown. Parents’ illiteracy, chronic food insecurity, distance between children’s homes and schools, and high rates of poverty are all factors that likely influence academic outcomes. However, additional research is needed in order to determine causal linkages between these factors and academic outcomes.

**Engagement in ECD offerings linked to higher achievement**

Students with exposure to Early Childhood Development (ECD) classrooms prior to entering Grade 1 recorded significantly higher reading scores than students without it, indicating that higher enrollment in quality ECD offerings could bolster later learning outcomes.

**No gender difference overall, but disparities exist in some districts**

Overall reading achievement levels were similar for boys and girls, with 35% of boys and 34% of girls reading fluently with full comprehension. However, statistically significant differences were found in Baitadi and Bajhang, where boys’ outperformed girls, and Dadeldhura, where girls scored better.

**Dalit and ethnic minorities most likely to struggle to read**

In 2017, 26% of Dalit students still fell in the “not yet begun to read” category, compared to 16% of Brahmin/Chhetri and 18% of Janajati. However, Janajatis had the smallest proportion (18%) of students reading at grade level, whereas Dalits (26%) and Brahmin/Chhetri (28%) students achieved the top category at similar rates.
Comparing EGRA Results

Because not all EGRA surveys use a learning achievement matrix that combines correct words per minute (CWPM) and comprehension scores into a categorical representation of how well students can read, CWPM is a useful proxy metric of reading ability that can be compared across assessments. The 2017 (Year 2) EGRA administered in this evaluation found an average CWPM of 43.8 for Grade 3; 31.2 for Grade 2; and 10.7 for Grade 1. For comparison, the fluency rates found in the 2014 nationally representative Early Grade Reading Assessment supported by USAID were 27.2 CWPM for Grade 3 and 14.2 for Grade 2, with lower averages in the Mid-Western and Far-Western regions where the School Feeding Program EGR component operates.

On average, no sample of Grade 3 students from any EGRA achieves the Government of Nepal (GON) benchmark of 45 CWPM. The students sampled for the 2017 EGRA evaluation from the current School Feeding Program’s EGR component had the highest achievement of any group, with an average of 43.8 CWPM. WEI’s UNICEF project operates a similar EGR program in a mix of schools with and without school meals. Grade 3 students sampled from the UNICEF project achieved an average 39.1 CWPM for students supported over three years and 32.1 CWPM for students with one year of EGR support, compared to students from control schools who averaged just 18.8 CWPM at the end of Grade 3. In Tharu language communities in Dang and Banke, WEI’s EGR interventions through the Sangai Sikau Sangai Badhaun project achieved 38 CWPM for Grade 3 and 24 CWPM at the end of Grade 2 in 2017.

Lessons Learned

World Education and WFP’s close alignment and cross-sectoral approach to addressing poor academic outcomes is maximizing the U.S. Department of Agriculture’s investment by tackling the issue from multiple vantage points. The major gains in learning outcomes over just two years show the value of incorporating an early grade reading component into the School Meal Programme. Prior to the inclusion of World Education’s Early Grade Reading activities, children in School Meal Programme schools had very poor learning outcomes: only 1% of Grade 3 students were reading at grade level. The 2015 baseline showed that providing school meals alone leads to increased attendance and prolonged attention spans but has little-to-no affect on learning outcomes.

Harnessing the goodwill of communities and strong foundations built by the School Meal Programme, modest additional investments in teacher training, the provision of learning materials, community mobilization and regular support greatly increased the educational impact of this program. Constant fluctuations in the food security situation mean that communities’ eligibility for meal support can change quickly; as a result, there is a need for the National Early Grade Reading Programme (NEGRP) to identify ways to provide continuity to these efforts, especially in districts such as Baitadi where the needs are great but for which there are insufficient resources.

While the results of the World Education-WFP joint program are only representative of schools where the project was implemented and cannot be generalized to entire districts or Nepal as a country, they offer encouraging evidence of the progress that literacy interventions can catalyze within school feeding programs.