

Zeroing in on the Zero Score Group

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Background

Eklavya is a non-government organisation based in Madhya Pradesh working since 1982 towards innovations in school education. This article draws on *Eklavya's* intervention between 2015-19 for primary school children in thirty-four villages of a tribal block in Madhya Pradesh. The goal was to ensure that language and maths competency scores improved over four years of work. This was achieved to some extent: however, we discovered that some children who attended school, as well as *Eklavya's* support centres, remained at the level of zero score over a year of attendance. We will discuss how *Eklavya* examined the issue and the possible steps that were envisaged to help all children learn.

Many organisations, including *Eklavya*, work with much hope and sincerity to enable all children to learn. We focus a lot on developing innovative materials, activities and methods; on training, workshops and follow up meetings with educators and teachers; on alternative and holistic ways of assessing learning in children and so on. In addition, in the past five years, I have learnt the benefits of closely maintaining and studying data to fine-tune these efforts for greater impact.

Methodology

I participated from October 2015 to March 2019 in *Eklavya's* project for universalisation of elementary education in the Tamia block of Chhindwara district under the aegis of the Jamsetji Tata Trust. This was conducted in 34 villages, reaching about 3500 children of 37 primary schools and about 1800 children of 15 middle schools. *Eklavya's* core team of six people worked with a field team of about sixty-two people to conduct two hours of out-of-school support centres for primary level in forty-nine locations and weekly support to schools in running libraries, activity centres, use of teaching-learning material (TLM) and teacher development processes.

The impact of the work was monitored through collecting and reviewing data of attendance of each child on a monthly basis, both in the school and in *Eklavya's* out-of-school centres, called *Shiksha Protsahan Kendra* (SPKs). The impact on learning levels was studied through a sample study done in seventeen of the thirty-four villages. Children of class III and class V were assessed.

The basic, initial plan was to track if the scores achieved by these children improved in each subsequent year of the project. The assumption was that with *Eklavya's* continuing support of children, teachers and parents, learning levels of each subsequent batch of children should improve. So, a child in class III in February 2016 would have had the support for just a few months; a child in class III in 2017, would have had the benefit of the support for a year; a child in class III in 2018 for two years, and in 2019, for three years. The aim was to ensure that all children in class III achieved the basic competencies of class I in Hindi and maths at least by the time they finished class III and that all children in class V achieved the basic Hindi and maths competencies of at least class III. These were tested through written and oral exercises conducted in February-March each year by the *Eklavya* core team and some of the field team members. Each year, around 150 children of class III and 150 children of class V were tested. The test paper/tasks were the same for all these years, given to different batches of children.

Did every child learn?

Our findings

Average scores

Presented below are the comparative results from the baseline (2016), mid-line (2017), end-line-1 (2018) and end-line-2 (2019) study of four consecutive batches of classes III and V. It shows that the performance did improve over the four years as there is a rise in the average scores.

Maths class III	Average score in percent	No. of students
End-line 2018-19	68%	158
End-line 2017-18	53%	141
Mid-line 2016-17	42%	161
Baseline 2015-16	33%	161

Maths class V	Average score in percent	No. of students
End-line 2018-19	45%	188
End-line 2017-18	34%	165
Mid-line 2016-17	31%	165
Baseline 2015-16	28%	152

Language class III	Average score in percent	No. of students
End-line 2018-19	38%	154
End-line 2017-18	34%	136
Mid-line 2016-17	30%	161
Baseline 2015-16	18%	151

Language class V	Average score in percent	No. of students
End-line 2018-19	59%	191
End-line 2017-18	49.4%	162
Mid-line 2016-17	49.2%	164
Baseline 2015-16	41.6%	141

Children in zero score

We looked at the percentage of children in different scores - 0,1,2,3,4 - as the case may be in each test paper. We could see that the percentage of children scoring 0 had, by and large, come down over the four years except in the class V maths and, to a lesser extent, in the class V language sample. For example, in class III Hindi sample, there were 65% of children in zero score in 2016, 50% in 2017 and 45% in 2018 and 39% in 2019. In maths, class III batches, the percentages of children with zero score were 30, 27, 18 and 9 in the four years. Thus, on the whole, the data showed that, as the project progressed, every year a larger number of children were learning.

Learning about children who did not learn

After the results of the mid-line study were

reviewed and many children were found to have scored zero, we decided to learn more about them. We decided to repeat the test with those children who had scored zero in the baseline test in 2016. These children had reached classes V and VII. So, for example, ninety-eight children of class III were in zero score in the baseline test done in March 2016. By November 2017, eighty-eight of these children were retested on the same paper (they were by then in class V). Fifty-eight of them had improved their learning levels and scored better but thirty of them again scored zero.

Based on the above data we created a list of students who had not been able to learn any of the competencies in more than a year of attending school and SPK. We tracked their attendance status. Here are a few examples from the tracking system:

The no-movement list (0 to 0 score in 2016 and 2017)

Student in 0 score in 2016	School Att. 2015-16	SPK. Att. 2015-16	School Att. 2016-17	SPK. Att. 2016-17	Re-testing Score 0 (Oct 2017)
AMITA	80%	75%	79%	82%	गणति
SONAM	68%	61%	59%	66%	गणति
AMRITA	70%	63%	67%	64%	गणति
RANI	62%	55%	66%	74%	गणति
MANISH	73%	68%	56%	64%	गणति
JAYKISHAN	73%	67%	NA	NA	दोनों में

Case studies

We followed up on this finding by meeting with the children, their caregivers and teachers in the villages. Thirty children were thus, discussed and their participation in the overall activities of the home, school and SPKs documented. Four students of Tata Institute of Social Sciences (TISS) who joined us for their rural practicum in the last week of March 2018 also helped in creating case studies. Given below are some examples.

CASE STUDY 1

According to Laxmi's teacher, she can write some basic information about herself, such as her name, her parents' names, her village name etc. She can also identify pictures correctly but finds it difficult to write words with *matras*. In maths, she can count up to 100 and can do basic addition and subtraction. Her SPK teacher told us that she has been regular to class and has 82% attendance. Her mother is a single parent and is the only earning member of the family. Her father passed away when Laxmi was just nine months old. Sonam occasionally goes to nearby towns, like Pipariya, for seasonal labour work. Other than that, to add to her income, she also sells dried *mahua*. She makes it a point not to take her children for *mahua* collection in the season. During the time when her mother is out on work, Laxmi and her elder brother, who is in class IX, are left alone at home and they manage to cook for themselves. According to her mother, Laxmi gets up by around 5 am and studies for two hours before attending SPK class and school, thereafter.

Laxmi's mother informed us that her son, who is in class IX, is also quite weak in studies and cannot read or write properly. She also said that the teacher in primary school is laid back and often comes to school drunk and the little that Laxmi knows is because of the SPK class that she has been attending and that there has been an improvement

in her academic performance.

CASE STUDY 2

Sunil is irregular to school. He hardly attended any classes in class IV and even fewer in class V. Even though Sunil is now in class V, he is unable to recognise alphabets and numbers. He was unable to write his parents' names and the date correctly in his exam papers. His teacher says his learning level is equal to that of a class I student. However, he is very good and creative in drawing. Sunil's parents say they drop him to school, but he runs away midway to go and play with his friends and gets very aggressive when they force him to attend school.

Sunil's is an OBC family, the Yadavs, who are economically better off as compared to the majority of villagers who belong to the ST community. Sunil lives in a *pukka* house and the family owns livestock and the major source of their income is through the sale of milk. Labour is shared - Sunil's mother is in charge of milking the buffaloes, he and his brother of feeding the cattle, while his father travels daily to Pipariya to sell milk and milk products. The family earns around ten thousand rupees per month, which is almost double of what the families in their neighbourhood earn practising farming. Sunil and his brother, Jairam, go to the forest to collect *mahua*, *tendu* and tamarind which they sell for 30-40 rupees a kilo in the market. The family also owns land and has a regular income.

Sunil's friends say that education is important and that the teachers teach well and do not hit them, but they do not come to school simply because they are not interested in studying. Sunil's elder brother goes to attend a middle school seven kilometres away. When he was in class V in 2016, he too had a zero score. In the retesting done in late 2017, when he was in class VII, his score was zero again.

Reflections on our findings

Tamia is a forested and hilly block, inhabited mostly by Gond and Bhariya tribal communities. A large number of families, such as Laxmi's family in the example given in the preceding section, are poor marginal farmers who rely on seasonal migration for labour jobs. We are, thus, examining the performance of children from this background and zeroing in on those among them who did not show improvement in learning, though many of their counterparts from the same socio-economic background did.

On the other hand, we also came across other children from relatively well-off families with higher social status, like Sunil, who also could not learn the competencies of much lower classes. In a few cases, their siblings also had faced challenges and while some managed to improve their performance by the time they came to class VII, others hardly improved. In many cases, parents took their children's schooling seriously but felt frustrated. However, they did not always blame the teachers; some teachers were appreciated for their efforts also. Further, we came across households where both parents had primary level schooling; were employed in business or had a government job, but their child was in zero score in our two years of monitoring.

Our learning from analysing the data and case studies was that no simple causal pattern was visible to interpret the low learning performance of a group of children. One possibility that we came to consider was the existence of specific learning disabilities in the group. Some of the literature we read on this issue corroborated our observations. For example, the socio-economic background has no role in the prevalence of specific learning difficulties (SLDs). Other findings were:

- The neural condition causing SLD may, to an extent, run in the family.
- Learning difficulties can be coupled with other special needs, such as hyperactivity and attention deficit.
- SLDs have no relation with the level of intelligence.
- SLDs may manifest in some children as challenges in reading-writing tasks, but not numerical tasks, or vice versa and in some cases, in both areas together.

We also realised that regularity of attendance in educational spaces could be both, high and low,

for different children who showed little progress in learning.

What role could we play in the situation we faced and understood very little of was a challenging question before us. The efforts made by Eklavya's field-level educators were being noticed and appreciated by parents, but could these efforts be finetuned to the specific needs of the children who were challenged in a specific way? As we read about SLD, we became aware that, though confirmed diagnosis only takes place after age eight, when the maturation of the brain is accomplished, interventions are most fruitful if pedagogic intervention is available before this maturation so that suitable adaptations can be strengthened in the neural system. Once maturation is completed, progress can become slower and more difficult, if not impossible.

These reflections made us realise that we should concentrate energies and attention on the early years – classes I, II and III. We began acknowledging the importance of early intervention from our impact study data too. It pointed to the possibility that those who got the benefit of the new support from *Eklavya* in their early years, fared better than those who were over 8-years and already in classes III, IV and V. The crucial role of effective early intervention in acquiring literacy was also underlined by successful projects, such as one carried out by the *Organisation of Early Literacy Promotion* in Rajasthan.

Modifying our intervention

In order to test our learnings, we organised an experimental programme in ten primary schools of Tamia in which:

- Ten key field persons worked every day only with children of classes I and II.
- This work was enriched with poems, stories, picture books, posters, flashcards, oral discussions, drawing etc with a structured literacy approach, moving systematically from one set of words to another.
- The field persons concentrated on phonological awareness with activities to process sounds at an oral-aural level before phonetically linking sounds to written symbols. Activities such as getting the children to think of more words rhyming with a given word (*aata, jaata, khaata, gaata...*), clapping with the syllables of the word (*aa-clap-taa-clap*).
- Worksheets were designed and used in class and children were assessed through these.

After six months of this work, we started getting good results, especially where the field educator was able to grasp the strategy and work with some consistency. We felt hopeful that if this group of class I and II children were to be tested later, at the end of their class III, the resultant score would improve greatly over the 2019 end-line score of class III. However, with the project closing in March 2019, such a follow-up was not possible.

This short-lived experiment enabled us to see that it was a challenge for our team members to participate in the activities for phonological awareness. There was a lot of fumbling and hesitation. This made us realise that phonological awareness, which builds the base for learning to read for all children, and something we took for granted, had to be explicitly foregrounded. In addition, it has great importance in helping children with specific learning needs. This was an important issue to learn and share in our training programmes and materials development workshops.

Our subsequent efforts in other blocks of Madhya Pradesh to help all children learn, continue to draw on the learnings of the Tamia experiment. We have begun to orient our team members on issues of specific learning needs. They have begun discussing observations about children they see struggling and falling behind in class, by moving beyond the old framework of low attendance and family background and accounting for the difficulties of the child. They have begun to make case studies and explore ways of moving ahead with specific children. For example, one team member has reported that involving a child's friends' group in a peer-tutoring process has shown positive results. In our work with government school teachers and our field teams, sessions on phonological awareness and structured literacy have become important. We hope these efforts will bear fruit and every child can indeed learn.

**Names have been changed to protect the identities of the children.*



Rashmi Paliwal worked from 1983 to 2019 with Eklavya in Hoshangabad and has contributed to curriculum development in school social sciences and teacher education. She has also supported Eklavya's publication efforts as well as projects for strengthening primary education in rural and tribal communities. She can be contacted at paliwal_rashmi@yahoo.com