

Written Assessments at Asha Chennai Projects

Click [here](#) to see all the photos from the written assessments conducted in 2018.



Background

Please read the earlier report on the Oral assessments that were conducted in Nov 2016 : <http://ashanet.org/blog/2017/01/asha-chennai-assessments/>. This describes all the efforts undertaken by Asha Chennai leading up to the Oral Assessments of Nov 2016. This also describes our goals for these assessments (both oral and written), our learning from the previous assessments that we conducted.

Here are previous news articles on our assessments.

- [Written assessments from Feb/Mar 2017.](#)
- [Oral assessments from Nov/Dec 2017.](#)

Coverage

Unlike 2016-17, in 2017-18 we conducted full ASER based oral assessments at all the schools that we were supporting. Therefore we

did not need to conduct partial oral assessments along with the written assessments.

The written assessment conducted in Feb / Mar 2018 once again covered all of the schools. The schools covered were as follows,

Project Sangamam	15 schools
Project Pearl	4 schools
Project Thulasi	5 schools
Poorna Vidhya +	7 (incl. Olcott Memorial School)
Project Sangamam Kanini	33 schools
Project Hyundai Steel Sangamam	6 schools.
Total	70 schools
Total Number of Children	3500+ children.

Assessments Feb 2018

This year we introduced the following changes from the last two years.

1. English tests were conducted for class 2 as well. This we conducted both English and Maths tests for all classes from 2 to 5.
2. Since full oral assessments were conducted in almost all these 70 schools back in Oct-Dec 2017, we did not need to conduct any partial oral assessments along with the written assessments.

Another major change in the implementation of the assessments was that the assessment papers we designed by our own lead teachers in English and Maths, Radhika and Nathiya respectively. Over the month of January we designed the assessment papers. The Maths papers were reviewed by Mrs. Meena Suresh of Ramanujan Museum and Centre for Math Resources. In Maths, we aimed to set the papers with the same coverage and at the same level of difficulty as last year. However upon reviewing the results we realized that the 5th std Maths paper was more difficult this year than the last.

Our English tests was reviewed by Mrs. Jayashree Arun, a volunteer of Asha Chennai and works at P.S. Senior Secondary School in Chennai. Like in Maths, we aimed to make the papers have similar coverage and at the same level of difficulty as last year. The question paper for 3rd std was significantly more difficult this year than the last.

When comparing the scores of last year with this year, we realized that wide variations in results come up due to small change in the question types. We still have a long way to go to standardize the tests to a point where results of different tests are comparable.

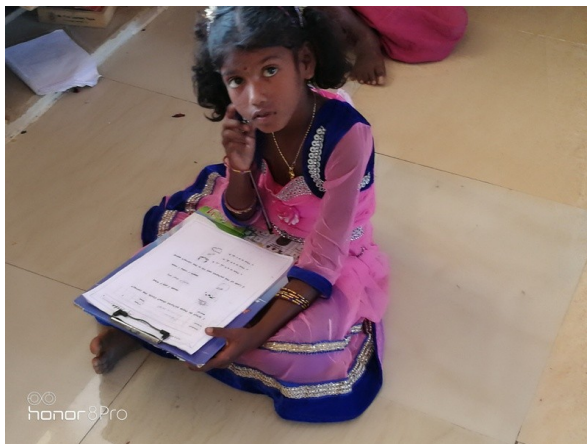
Conducting the Assessments



The assessments were conducted from Feb 15th to March 15th. The assessments were conducted at various places as follows.

Thiruvallur and Kancheepuram Dists (54 schools)	Feb 15 th to 26 th .
Project Pearl (4 schools)	Feb 18 th to 22 nd .
Chennai Schools (6 schools)	Mar 1 st .
Project Thulasi (5 schools)	Mar 5 th to 10 th .
Gooduvancheri	Mar 15 th .

Like we did last time the computer teachers conducted the assessments in pairs at Thiruvallur and Chennai. Volunteers Rajaram and Venkat monitored the conduct of the assessments at some of the schools. At Project Pearl our lead teacher in English Radhika went to Kovilpatti and personally conducted the assessments at all the 4 schools there. Two of the volunteers Rajaram and Venkat travelled to Senji area to train the teachers in the conducting of the assessments and personally oversee it in a couple of schools.



The rules followed by the teachers while conducting the assessments were the same as last year.

The papers were leaked at some 4 schools in the Goonipalayam to Placepalayam belt. Besides these the assessments were well conducted overall.

Correcting the Assessments and Entering the Marks

The corrections this year was also handled largely by the teachers themselves. Four senior teachers at Thiruvallur and one senior teacher with Poorna Vidhya were doing most of the corrections. Five volunteers also stepped in to help out with the corrections in some of the schools.

We followed rules similar to last year to ensure consistency in the corrections. Also the software infrastructure created for processing the assessment grading worked smoothly this time also making it a fairly straightforward process. The results from all the schools were available before the end of March!

Analysis of the Performance

All the analysis available for last year's written assessment are also available this year. See the "Analysis of the Performance" section from [last year's written assessment report](#) for more details.

The following additional analysis are also available.

1. Comparison of how classes/sections that are taught by Asha teachers have fared compared to all classes/sections of the schools they go to.
2. Correlational analysis of the performance of the schools against various data available for the school like absentee percentage (we have the data during the days of the oral and written assessment to start with), RTE grade for the school, Teacher student ratio, Percent of SC/ST population (which tends to be poorer) etc.
3. Correlational analysis of the oral and written performance (at school and student levels), of the English and Maths performance (at the school and student levels).

Observations and Learnings from the Assessments

In the Tamilnadu education department, there is a growing emphasis on the real learning that is taking place rather than just a measure of completing the curriculum. This has brought in greater acceptance and in many cases even welcome for Asha's assessment in these schools! Several school teachers were asking for more such question papers when training the students for the National Achievement Survey was going on at these schools.

The performance of the children at the schools were broadly in line with the performance last year. Here are some broad observations.

1. As mentioned earlier 3rd std English and 5th std Maths were more difficult this year than last year. In English we replaced a set of question matching words to their pictures with a question where children have to see the picture and write the word in the sentence. This itself meant a difference of 2 to 3 marks in the score.

2. In Maths broadly we are coming closer to the level of the curriculum. In 5th standard this had made the paper tougher. This meant the average scores dropped from 14.5/30 to 13.2/34.
3. We changed the method for conducting the tests for 2nd standard to be more child friendly. This made conducting the tests for them a lot easier. We did not face the kind of blank papers with the 2nd std children.
4. Like we observed last time, in English children are largely still stuck in vocabulary learning. Children cannot handle sentence level or paragraph level questions.
5. In our Maths papers, at each class we introduced a tricky question which would involve reasoning beyond just applying the concepts. For instance for class 3, we had a question $7 - 1 = 8 - \underline{\quad}$. For class 4 we had a scale aligned to a pencil but the start of the pencil was at 1 cm. We asked the children to write the length of the pencil. Even the brightest children in the schools struggle with questions such as these. Children need to be encouraged to think beyond the curriculum.
6. Like last time, once again there are wide variations in the performance of children across all the schools. See the section below on correlational analysis.

On the whole the schools where we are continuing to support have done slightly better than last year. We were hoping for a more significant improvement. We found the many of the same problems as last year. We added a few more pointers to the schools in our report this year. Here are the suggestions we made for Maths.

- Please revise earlier class and term topics at the beginning of a term. Many of the students (from all schools) failed to answer easy questions that would have been covered in earlier classes. Also revise the basic arithmetic operations now and then even if not included in the term syllabus.
- Results indicate that the students who have not understood the primary concept keep making mistakes in problems involving the concepts even in higher classes. Teachers need to begin teaching from the point that the students already know, even if it requires teaching of previous class lessons.
- Teach them properties of the operations right when you teach them the operations.
- Teachers can call out the sum and the students should write and do the sums. This will help in doing the work independently. i.e. Teacher should not write the sums in the board or their notebook all the time. This will help children get their place values right.
- Basic arithmetic operations can be provided to the children in multiple formats. Children often get things wrong if the sum is given in a format they are not used to.
- Whenever something is taught using manipulatives or materials, it should also be accompanied by the written representation of the problem so that the children understand the relation between these different representations of the same problems.

Some of the suggestions we have made for English are,

- Make them listen to the read out of the lesson provided in the computers. Help them follow what is being read out in the textbook by running their finger over the words. Get the whole class to read aloud the lesson after the teacher (or the recording).
- Use the tools provided like charts, library books, contents on the computer like Hello English or ESpeak to improve basic vocabulary of the children as well. Make them translate from English to Tamil and vice-versa.
- Teach them basics of phonics. You may use materials like the StarFall that we have provided in the computers. The system used in some of the schools trained by the SSA also works well.
- Please give random dictation words to the children (oral and written). Also ask children questions with one-word answers from the lessons.
- Read stories to the children from English books and help them understand it by translating to Tamil.

To each school we have provided a report with a cover letter stating the above points, the school level display and class level display for each of the 5 classes.

Correlational Analysis

We did an analysis to understand what the cause of the poor or good performance of the schools may be in the hope that this might give us some insight into what may be done to ameliorate the negative effects of some of these factors. Also broadly correlating between oral / written performances, between English and Maths performance and across years, help us understand how the performance evolves and about the validity of our own assessment methodology. i.e. A assessment where the performance varies widely between one time and another is not good. That would mean the results are not consistent and that we cannot come to any judgement from the results.

We have done the following correlational analyses.

1. [Correlation with external factors](#): This correlates the assessment marks with a variety of external factors like attendance on the day of the test, teacher student ratio, school strength, percentage of ST students, percentage of SC/ST students, etc. These factors were taken for the school from the 2015-16 data available on the www.schoolreportcards.in website.

2. [Correlation of Oral and Written Performance](#): This compares the oral performance of the school in oral and written assessments. This is done only for 17 schools where we did the full oral assessments.
3. [Correlation of Maths and English performance](#): This correlates the performance of the children in English and Maths against each other.

In all these I print the mathematical correlation value as well as a visual representation of it. I sort the schools based on one of the values and display that and the other value in that order. So visually the first factor (represented by circles) would usually be a line going up from left to right. You can visually check if the second factor (represented by crosses) kind of goes up from left to right or goes down. Hover over these points to get details. The left Y-axis is for the first factor and the right Y-axis is for the second factor.

Here are our broad observations,

- [Correlation with school Attendance](#) -- Weak positive correlation. i.e. School with better attendance do slightly better.
- [Correlation with how much the strength of the school has declined in the last two years](#) -- No correlation.
- [Correlation with Student to Teacher ratio](#) -- Strong negative correlation for classes 2 to 4 and weak negative correlation for class 5. i.e. Schools with good teacher - student ratio (i.e. lower student-teacher ratio) do better esp. in lower classes.
- [Correlation with ST percentage](#) -- Weak negative correlation. i.e. Schools with higher tribal population are doing badly.
- [Correlation with SC/ST percentage](#) -- Weak negative correlation. i.e. Schools with higher SC/ST population are doing a little worse.
- [Correlation with School Strength](#) -- Weak negative correlation. i.e. Children in bigger schools tend to do worse.
- [Correlation with RTE score](#) (i.e. a score rating the school's infrastructure out of 10 points) -- No correlation.
- [Correlation between Oral and Written performance](#) -- Strong correlation.
- Correlation between English and Maths marks in a school -- Even stronger correlation.

Note the correlational analysis was done with the 2016-17 results. We are yet to do that on the 2017-18 results. We will update this with the 2017-18 results along with the following additional correlation studies.

1. Correlation of oral and written performance across years.
2. Correlation of Oral vs. Written English vs. Maths at an individual student level.