

Sikshana Foundation: Students Assessment in  
three Talukas of Karnataka

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 **ERNST & YOUNG**

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# 1. Background

## 1.1 About Sikshana Foundation

Sikshana Foundation was started in 2002 by a small group of professionals with the broad intent of supplementing government efforts to improve the state of public education in the country. Named after the Foundation, the Sikshana programme focuses on improvement of learning outcomes within the available resources. It is essentially a motivational programme for both students and teachers where they are encouraged to define their goals and are then facilitated to achieve these goals. The uniqueness of the programme lies in its focus on individuals rather than school because of its belief that by addressing the requirements of students and teachers, the diverse requirements of the schools would be met. In that sense it is a decentralised approach which builds on the existing resources.

The programme focuses on children between the age group of 6 to 16 years. Considering that these are formative years, Sikshana has chosen to work with this age group. Started with just 3 schools, currently, Sikshana is working with 1115 primary/ high schools across in Karnataka, Andhra Pradesh, Gujarat and Maharashtra. Within Karnataka the programme extends to 7 *Talukas* (Kanakpura, Hosakote, Hubli, Dharwad, Kalghatgi, Kundgol and Navalgund).

It is a simple bottom up approach which is cost effective. Operating with an annual budget of nearly five crores, Sikshana has partnered with state governments and donors (both individuals and organizations) to improve and enhance the process of learning. A per child expenditure is about Rs.300 per annum.

Sikshana Foundation offers a range of activities which the schools can choose from, depending on their requirements and interest areas. Some programmes initiated by Sikshana are mentioned below:

**Writing Programme:** Sikshana had introduced writing programme in all the schools where it works. This is based on their observation that while students are offered incentives in the form of books and uniform, they do not have stationery and notebooks where they can practice writing. In order to fill up this gap, schools are provided with writing sheets, which are distributed to children every week and are encouraged to fill and use them up by the end of the week. The sheets are used to practice English language (sheets with four lines) and maths (sheets with boxes). The 'used sheets' are exchanged with a fresh set on a regular basis. This exercise has resulted in significant improvement in the speed and quality of writing in a majority of students.

**Reading Programme:** Children who are lagging behind in reading ability are identified and grouped with children who are good at it. In this 30-day programme, each child reads a non-text book (non-academic) material developed by Sikshana every day. The child is helped by his/her friend who acts like a peer educator. This helps the child improve her vocabulary and also bond with peers which motivates them to aspire for higher levels. According to Sikshana, this innovative programme has shown tangible results.

**Arithmetic programme:** In the arithmetic programme for the basic skills, Sikshana has evolved a set of worksheets when used in a regular structured approach like the reading programme, yields good result as reflected in the assessment data analysed over the last 3 years in Sikshana schools. The key to this success is practice and regularity which is ensured by the *Sikshana Shala Hitaishis*<sup>1</sup> who track the progress of individual children through a computer system designed for the purpose.

**Motivational inputs:** Sikshana Foundation provides 50 stars to every teacher in each school. As a token of appreciation, children are awarded a star badge for their skills or academic performance, which can be redeemed for a gift in future. This intervention has helped in sustenance of interest in learning besides motivating them to attend school regularly. Children take pride in wearing badges, which encourages them to strive harder to earn more badges, thus kindling an interest in learning. Quite interestingly, it was shared that children are so fond of the `stars' that very often they are reluctant to redeem these for gifts.

**Leadership training for the head teachers :** Special programmes are designed for the head teachers/teachers to take up greater leadership roles in schools. These have been hugely successful and appreciated as a novel experience, quite different from the usual training programmes organised for them.

**Exposure visits:** This programme is organised for 6<sup>th</sup> and 7<sup>th</sup> standard students. Sikshana Foundation organises tests at two levels i.e. one at the school level and the other at the respective *taluk* levels. The first level is conducted in the schools by the school teacher. Top two students are shortlisted from each school and send for *taluk* level test. The students with the highest marks and thereafter are shortlisted for the trip. It is the schools who make logistic arrangements. Sikshana only provides funding for the trip. In the last 5 years over 1000 children have visited Delhi and the biggest impact is the way in which the community rallies around the school from which a student has got selected.

**Student counselors (Shala Hitaishis):** *Shala Hitaishisi* is provided to schools by Sikshana Foundation to support and help teachers in improving learning levels of children. *Shala Hitaishis* regularly visit the schools, monitor the child's and school's progress and guide them to overcome the barriers to their learning.

A combination of these interventions and many more is intended to bring about an improvement in the learning outcomes of all students.

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<sup>1</sup> Shala Hitaishis are motivators who work closely with the schools to which they are attached over a period of time and form a strong bridge between the teachers, students and parents.

## 1.2 Terms of Reference for the study

Sikshana has an ongoing structured programme to conduct assessments in the schools they work with. Ernst & Young Private Limited was invited to undertake a Third Party Evaluation of students studying in Class VII in the schools Sikshana works with. The scope of work involved :

- ▶ Selecting an appropriate sample of schools covering 3 *Taluks* viz. Kanakapura, Hosakote and Kalghatgi.
- ▶ Administering test in Maths (Written) and Kannada (Reading) to students.
- ▶ Analyzing the data collected for each *Taluka*
- ▶ Comparing the results with Karnataka ASER Report.

This report presents the findings of the assessment carried out in the three *Talukas*. As required, the data collected was compared with the ASER Report. In addition, gender-wise and *taluk*-wise was also done to gain better insights.

## 2. Methodology

### 2.1 Sampling

The schools were selected using the PPS sampling method. This method allows schools with higher number of students as well as school with lower number of students have the same probability of getting into the sample. The following procedure was adopted for sampling:

- ▶ Total number of schools with students was provided by Sikshana which was used as a Universe. The total population of students to be covered was 6790.
- ▶ Using statistical significance at 95 percent confidence level with a statistical error of +/- 5.0 percent, the number of students to be covered was calculated as 364.
- ▶ Having arrived at the number of students to be covered, PPS method was used to identify the schools. 31 schools were identified for data collection.

The table below provides the profile of the schools selected along with the respondents that was undertaken for the study:

**Table 1 Profile of the schools, and respondents selected under Sikshana Foundation**

Taluk	School Name	No of students (class VII)	Sample size	Female	Male
Hosakote	G.H.P.S.Anuppalli	8	4	3	1
	G.H.P.S.Chikkanahalli	13	9	6	3
	G.H.P.S.Doddagattiganabbe	24	18	9	9
	G.H.P.S.G G M S	115	29	14	15
	G.H.P.S.Janata Colony Sulibele	32	7	7	0
	G.H.P.S.Kumblahalli	35	23	11	12
	G.H.P.S.Nadavatthi	16	11	5	6
	G.H.P.S.Shivanapura	77	22	10	12
	G.H.P.S.Turuvaranga	19	13	11	2
	Mugabala	33	16	7	9
Kalghatgi	G.H.P.S. Aladakatti	13	10	5	5
	G.H.P.S. Dyavanakonda	23	5	5	
	G.H.P.S. Jodihalli	45	8	7	1
	G.H.P.S. Malakanakoppa	34	16	6	10
	G.H.P.S. Sangadevarakoppa	20	10	4	6
	G.H.P.S.Belavantara	33	20	9	11
	G.H.P.S.Devikoppa	63	15	9	6
	G.H.P.S.G-Hulakappa	61	20	14	6
	G.H.P.S.Kalghatgi(KBS)	68	19	4	15
G.H.P.S.T-Honnalli	44	17	10	7	
Kanakapura	G.H.P.S. Aregadakalu	10	8	5	3
	G.H.P.S. Chikkalbalu	14	14	9	5
	G.H.P.S. Gabbadi	17	16	7	9
	G.H.P.S. Thungani	40	31	16	15
	G.H.P.S. Hulibele	11	10	3	7
	G.H.P.S. Kagalahalli	26	22	13	9

G.H.P.S. Kanakapura - G.G.M.S	65	24	14	10
G.H.P.S. Kolagondanahalli	48	28	8	20
G.H.P.S. Maralavadi	84	16	10	6
G.H.P.S. Salabanni	17	8	2	6
G.H.P.S. Thokasandra	35	9	6	3

## 2.2 Data Collection

After identifying 30 schools across three taluks, Kannada reading, and arithmetic tests were administered. The reading material and problem sets for arithmetic was used from ASER Karnataka Rural Report for 2012 so that a comparison could be made. Three teams of 4 members each were formed. A team of two researchers visited each school and conducted the test with the students. Due care was taken to put the children at ease while conducting the test. The researchers selected for data collection had substantial experience of working with children and understood the principles of child rights. The data collection was completed in three working days.

## 2.3 Assessment Framework

Scoring for the tests was done in the following manner.

### Kannada reading

The Kannada reading test has 4 categories:<sup>2</sup>

- Letters: Set of commonly used letters
- Words: Common familiar words with 2 letters and 1 or 2 *matras*.
- Level 1 (Std 1) text: Set of 4 simple linked sentences, each having no more than 4-5 words. These words or the equivalent are in the Std 1 textbook of the states:
- Level 2 (Std 2) text: "Short" story with 7-10 sentences. Sentences construction is straightforward, words are common and other context is familiar to children. These words (or equivalent) are in the Std 2 textbook of the states.

<sup>2</sup> <http://www.pratham.org/file/ASER-2012report.pdf>, with special reference to page no 15, 16, and 17

The tabular matrix provides a detailed description of assessing Kannada reading proficiency.

### Kannada Reading assessment matrix (adopted from ASER 2012 Report)

#### PARAGRAPHS

The child is considered not at the '**Paragraph Level**', if the child:

- Reads the text like a string of words, rather than a sentence.
- Reads the text haltingly and stops very often.
- Reads the text fluently but with **more than 3 mistakes**.

If the child is not at '**Paragraph Level**' then we have asked the child to read words.

The child is considered to be at the '**Paragraph Level**', if the child:

- Reads the text like he/she is reading sentences, rather than a string of words.
- Reads the text fluently and with ease, even if she is reading slowly.
- Reads the text with **3 or less than 3 mistakes**.

If the child can read a paragraph, then we have asked the child to read the story.

#### WORDS

- If she/he is able to choose and read **4 out of 5 words** with ease then the child is at '**Word Level**'

If the child is at 'Word Level', then we have asked her/him to try to read the paragraph again and then follow the instructions for paragraph level testing. If she can correctly and comfortably read words but is still struggling with the paragraph, then mark the child at 'Word Level'.

If the child is not at word level (cannot correctly read at least 4 out of the 5 words chosen), then we have showed her the list of letters.

#### STORY (Level 1 & 2 text)

The child is at **Story Level**, if the child:

- Reads the text like she/he is reading sentences, rather than a string of words.
- Reads the text fluently and with ease. The Child may read slowly.
- Reads the text with **3 or less than 3 mistakes**.

If the child can read the story then the child is marked at the 'Story Level'.

If the child is not at a Story Level, then she/he is marked at 'Paragraph Level'.

#### LETTERS

The child is at '**Letter Level**' if the child:

- Correctly recognizes at least **4 out of 5** letters with ease.

If the child can read letters, then we have asked her to try reading the words again and then follow the instructions for word level testing.

If she/he can read **4 out of 5** letters but cannot comfortably read words, then mark the child at '**Letter Level**'. If the child is not at letter level (cannot recognize 4 out of 5 letters chosen), then mark the child at '**Beginner Level**'.

#### Arithmetic test

The ASER tool was used for conducting the arithmetic test also. The test has 4 categories:<sup>3</sup>

- ▶ Number recognition 1 to 10
- ▶ Number recognition 11 to 99: randomly chosen numbers between 11 to 99.
- ▶ Subtraction: 2 digit numerical problems with borrowing.

<sup>3</sup> <http://www.pratham.org/file/ASER-2012report.pdf>, with special reference to page no 18, and 19.

- ▶ Division: 3 digit by 1 digit numerical problems.

The team made use of the last three categories since the test was to be administered to class 7 students. It was assumed that they would know numbers from 1-10.

The tabular matrix provides a detailed description of assessing arithmetic level. It was adopted from the ASER 2012.

### Arithmetic assessment matrix (adopted from ASER 2012 Report)

SUBTRACTION 2 digit with borrowing	
<p>If the child <b>cannot do both</b> subtraction problems correctly, then we have asked the child to recognise numbers from 10-99.</p> <p>Even if the child does just one subtraction problem wrong, we have given he/him the number recognition (10-99) task</p>	<p>If the child <b>does both</b> the subtraction problems correctly, we have asked her/him to do a division problem.</p>
NUMBER RECOGNITION (10-99)	DIVISION 3 digit by 1 digit
<p>We have asked the child to identify any 5 numbers from the list.</p> <p>If she can correctly identify at least 4 out of 5 numbers then we have marked her/him at '<b>Number Recognition (10-99) level</b>'.</p>	<p>If she/he is able to correctly solve the problem, then we have marked the child at '<b>Division Level</b>'.</p> <p>Note: The quotient and the remainder both have to be correct.</p> <p>If the child makes a careless mistake, then we have given the child another chance with the same question.</p> <p>If the child is unable to solve a division problem correctly we have marked the child at '<b>Subtraction level</b>'.</p>

Both the Kannada reading and arithmetic tests were administered based on the guidelines mentioned in the ASER 2012. The test sheet for Kannada reading was scored on a scale of 1 to 3. Where 1 stands for poor, 2 for Average, and 3 for Good. Scores were marked based on the reading ability and capability of the child to identify letters, words, paragraphs, and story. Similarly Arithmetic test was scored separately for 'Number', 'Subtraction', and 'Division'. For numbers students were asked to identify numbers from 10-99. One point each for correct identification was marked to the student.

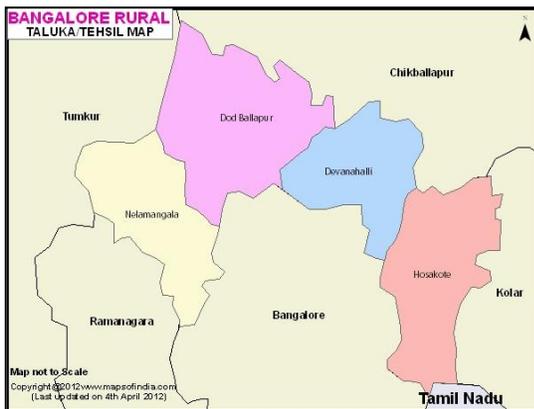
- ▶ The number section of the test was scored under 3 heads i.e. child who has scored 10 points, a child who has scored in between 5 to 9, and a child who was able get a score of less than 5.
- ▶ Similarly the subtraction section of the test was scored under three heads i.e. child who has scored 8 points, a child who has scored in between 5 to 7, and a child who was able get a score of less than 5.

- ▶ A similar classification was made for the division section i.e. child who has scored 10 points, a child who has scored in between 5 to 9, and a child who was able get a score of less than 5.

### 3. Findings of the Study

Sikshana has been working in these *Taluks* for the last 2-5 years. In the current year (2012-13), the foundation is working in 1115 schools across 4 states out of which 755 are in Karnataka. The objective of the programme is to ensure that every child in 7th class acquires the basic arithmetic and language skills before s/he moves to high school. All the 775 schools have 7th class children, and all of these are being tracked by Sikshana using a software developed for this purpose.

This study was carried out to validate the results of their assessments in 3 *taluks* i.e. Kanakapura, Hosakote and Kalghatgi taluks. All these *taluks* have been under the Sikshana programme for at least 2 years. The literacy rates vary from 56 % - 69%. While Hosakote is closer to the urban Bangalore, Kalghatgi is located away from the urban population. Kanakapura, although close to Bangalore is largely rural.



Hosakote is located on the west of Bangalore Rural district and is surrounded by Bangalore Urban district on its west and south west, Kolar on its east and north and Tamil Nadu State on its south. The Taluk has five hoblies with 225 inhabited villages. Hosakote is well connected by road network from Bangalore city towards southwest to Chennai towards north east by NH-4. As per census 2001, the taluk has a population of 222,430 persons. It constitutes 12 percent of the District population. The population density is 407 people per sq.km.

Sex ratio stands at 931 female per 1000 male. The literacy rate is 69.2%, as against District literacy rate of 64.7% and the taluk stands second place<sup>4</sup> in the District in the literacy ranking.



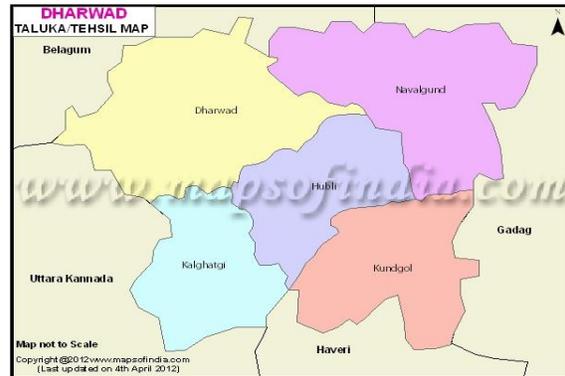
Kanakapura Taluk has a geographical area of 1591 sq.km. It constitutes 27 percent of Bangalore Rural District. The Taluk is bounded by Bangalore Urban District in the north, Dharmapuri District in the east, Chamarajanagara District in the south and Channapatna taluk in the west.

The Taluk has 6 hoblies with 239 inhabited villages. As per census 2001, the total population is 337,208 with 86 percent of the population living in rural areas and remaining 14% in urban areas. The population density is 212 people per sq.km. Overall literacy of the Taluk is 56% as

<sup>4</sup> <http://pre.docdat.com/docs/index-128817.html?page=3>. Accessed on May 02 2013

against the District literacy rate of 64.7%. The literacy rate is 56%, as against District literacy rate of 64.7% and the Taluk stands 8th place<sup>5</sup> in the District in literacy ranking.

Kalghatgi is situated 30.7 km from the District of Dharwad. The taluk has 3 hoblies with 87 inhabited villages. It is located 375 km away from the main city of Bangalore. As per Census 2001, the total population is 136,978. Male constitutes 51% of the population and female 49%. The literacy rate is 62%, of which male literacy is 69%, and female literacy is 55%.



As mentioned earlier, along with the interventions, regular assessments form an integral part of the programme. Sikshana uses different levels of assessments for class 4 to 8 in all the schools, where they operate. They have, in the past, used tests developed by Education Initiatives and Azim Premji Foundation also. The advantage of using ASER is that the results can be compared with the state level data.

This analysis covers the assessment results of 478 students of 7<sup>th</sup> standard i.e. 140 students in Kalghatgi, 152 students in Hosakote, and 186 students in Kanakpura. At the outset the performance of the students has been benchmarked against the ASER Report. The scores achieved by the students have been further analysed in Kannada reading and arithmetic test taluk wise and gender wise to have a better understanding of the variations.

<sup>5</sup> Taluk Industrial Development Plan – Kanaakpura Taluk, Accessed from web on May 02 2013

### 3.1 Comparison with ASER Results

As is known Annual Status of Education (ASER) Report is brought out each year since the year 2005. It is a nation-wide survey that is carried out in the rural areas to find out what is the level of achievement of students at the elementary education level. A common methodology is used to conduct the tests and do the scoring. Although there are varied opinions about the process involved, it is a good tool to see the trend in the learning levels of students across levels and across states. It was for this reason that the ASER test paper was used in the 3 talukas.

The results of the students were compared with the score of ASER Report for Karnataka. Although ASER is a State level report, perhaps not comparable to *Taluk* level data, but the scores have been presented to see how children under Sikshana programme were faring against the state average as outlined in the ASER Report.

Table 2 Percentage of Children by class and reading level in Kannada and Arithmetic proficiency

Class VII subjects	ASER Karnataka Findings	Sikshana Findings			
		Cumulative of three taluks	Kanakpura	Hosakote	Kalghatgi
Kannada Reading					
▶ Level II	71.5%	86%	92.9%	88.7%	76.3%
Arithmetic test					
▶ Number recognition (11 to 99)	94.5%	97.4%	100%	97%	94%
▶ Can subtract 2 digit numerical problem	77.2%	91.4%	98.4%	83%	91.4%
▶ Can divide 3 digit by 1 digit numerical problem	42.5%	76.5%	80.6%	64%	75%

When the findings of test scores was compared with (ASER) for Karnataka, it was found that students in the schools adopted by Sikshana Foundation have performed better in Kannada reading as well as in Arithmetic tests administered to them. A comparative analysis of Sikshana Foundation results with that of ASER is provided below:

- ▶ For proficiency in Kannada reading Level II, 92.9% children in Kanakpura, 88.7% in Hosakote, and 76.3% in Kalghatgi were found to be proficient, which is higher than the corresponding figure of ASER Karnataka findings i.e. 71.5%.

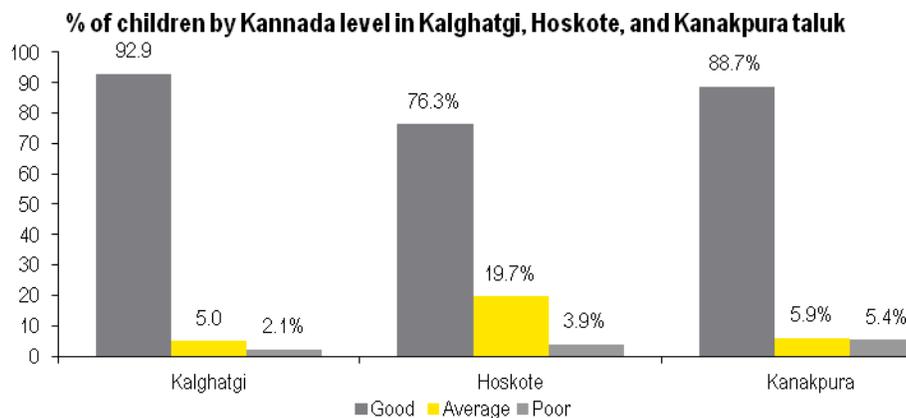
- ▶ Similarly results for subtraction shows that 98.4% children in Kanakpura, 83% in Hosakote, and 91.4% in Kalghatgi were able to do subtraction, which was higher than ASER results.
- ▶ Finally, the results of division tests for all the taluks were better (Kanakpura 80.6%, Hosakote 64%, and Kalghatgi 75%) than ASER results which shows that only 42.5% children were able to do a 3 digit division.

## 3.2 Kannada Reading test across three taluks

The results of the students were further analysed according to the scores. This helped to get an understanding about qualitative aspects of the level of kannada reading among students. The scores were analysed at taluka level and for ascertaining whether there were any gender differences in their ability to read.

- ▶ Only 5.4% children in Kanakpura, 3.9% in Hosakote, and 2.1% in Kalghatgi were not able to read words. They were, however, able to identify letters. 19.7 % children in Hosakote, 5.9% in Kanakpura, and 5% in Kalghatgi were able to read Level 1 text but not Level II text. A large majority of 92.9% of children in Kalghatgi, 88.7% in Kanakpura, and 76.3% in Hosakote were able to read upto Level II text.

Figure 1



Source: Ernst & Young Analysis

### 3.2.1 Kannada Reading test by gender

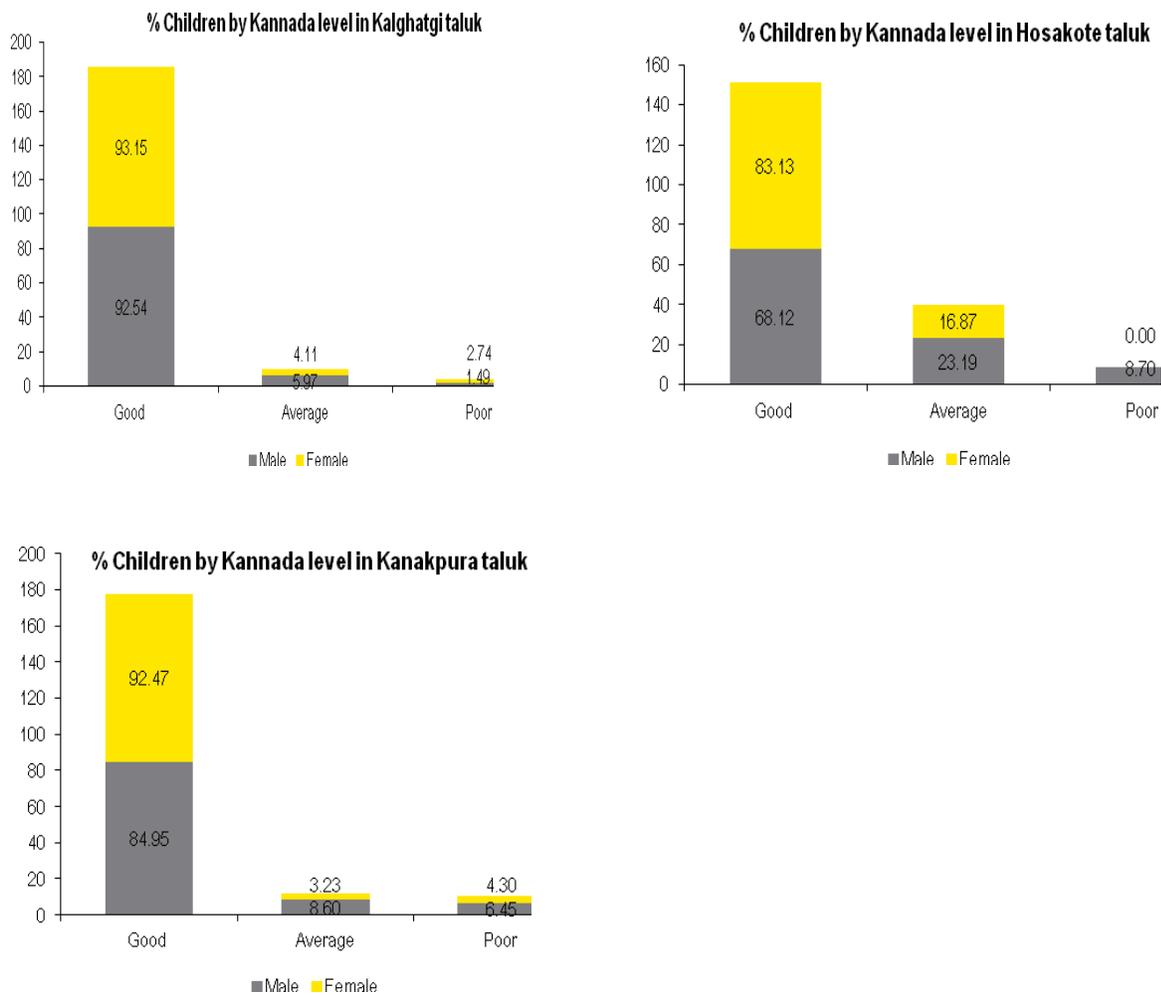
There were some gender differences across the three taluks. Overall, Girls outperformed boys in all the three districts. While in Kanakpura and Kalghatgi the difference was marginal, it was quite pronounced in Hosakote. Girls were found to be more fluent with kannada language.

- ▶ 2.74 % female students, 1.49% male students in Kalghatgi taluk were not able to read words, but were able to identify letters. Similarly, 5.97% male students, 4.11% female

students were able to read Level I text but not Level II text. A large majority of students 93.15% female students, and 92.54% male students were able to read Level II text quite fluently.

- ▶ In Hosakote taluk, 8.70 % male students were not able to read words, but were able to identify letters. In comparison all the girls were able to read the words. Similarly, 23.19% male students, 16.87% female students were able to read standard I text but not Level II text. A higher proportion of girls (83.13%) - than boys (68.12%) were able to read Level II text.
- ▶ 6.45% male students, 4.30% female students in Kalghatgi taluk were not able to read words, but were able to identify letters. Similarly, 8.60% male students, 3.23% female students were able to read Level I text but not Level II text. Level II text was read by 92.47% female students, and 84.95% male students.

**Figure 2**



Source: Ernst & Young Analysis

### 3.3 Arithmetic test across three taluks

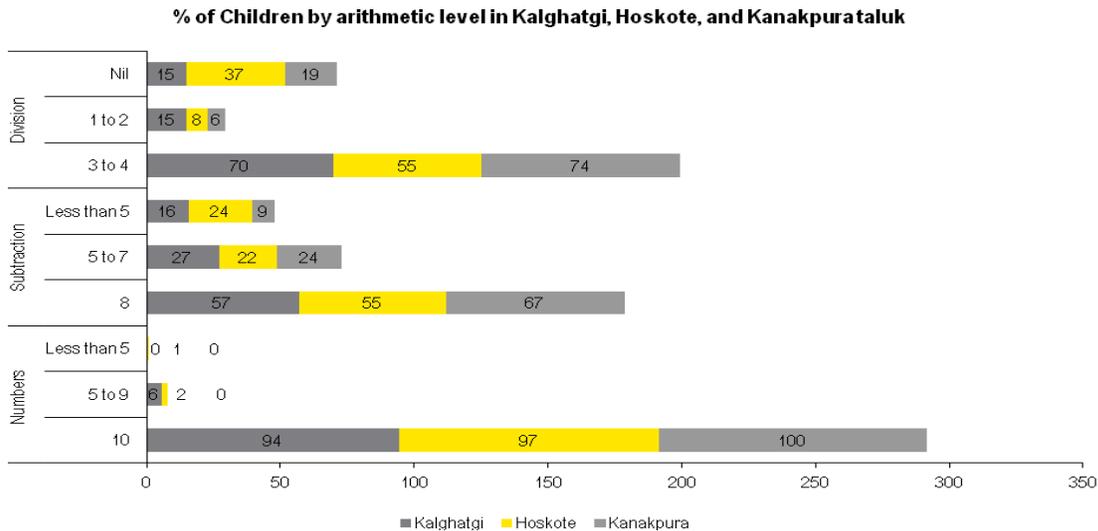
A similar taluk wise and gender wise analysis was done on the scores for arithmetic test also. This sub-section provides the results and interpretation of Arithmetic test by taluk on the a) Ability of the children to recognize numbers from 10-99; b) Ability to do 2 digit subtractions; c) Ability to do division.

**Numbers :** Almost all students 94% children in Kalghatgi, 97% children in Hosakote, and 100% children in Kanakpura were able to recognize numbers from 10-99 and received a score of **10 out of 10**.

**Substraction :** 67% children in Kanakpura, 57% in Kalghtgi, and 55% in Hosakote were able to do subtraction with ease. They all scored **8 out 8**.

**Division :** 74% children in Kanakpura, 70% in Kalghatgi, and 55% in Hosakote were able to do division well and scored between **3 to 4** on a scale of 1-4.

Figure 3



Source: Ernst & Young Analysis

#### 3.3.1 Arithmetic test by gender

As in the case of kannada language, girls showed better performance vis-à-vis arithmetic also although the difference was not as pronounced as in the case of language.

##### Ability of children to recognize numbers from 10-99:

- ▶ 50% female students, 44% male students in Kalghtagi were able to recognize numbers from 10-99 and received a score of **10 out of 10**.
- ▶ 54% female students, 43% male students in Hosakote taluk were able to recognize numbers from 10-99 and received a score of **10 out of 10**.
- ▶ 50% each female and male students in Kanakpura taluk were able to recognize numbers from 10-99 and received a score of **10 out of 10**.

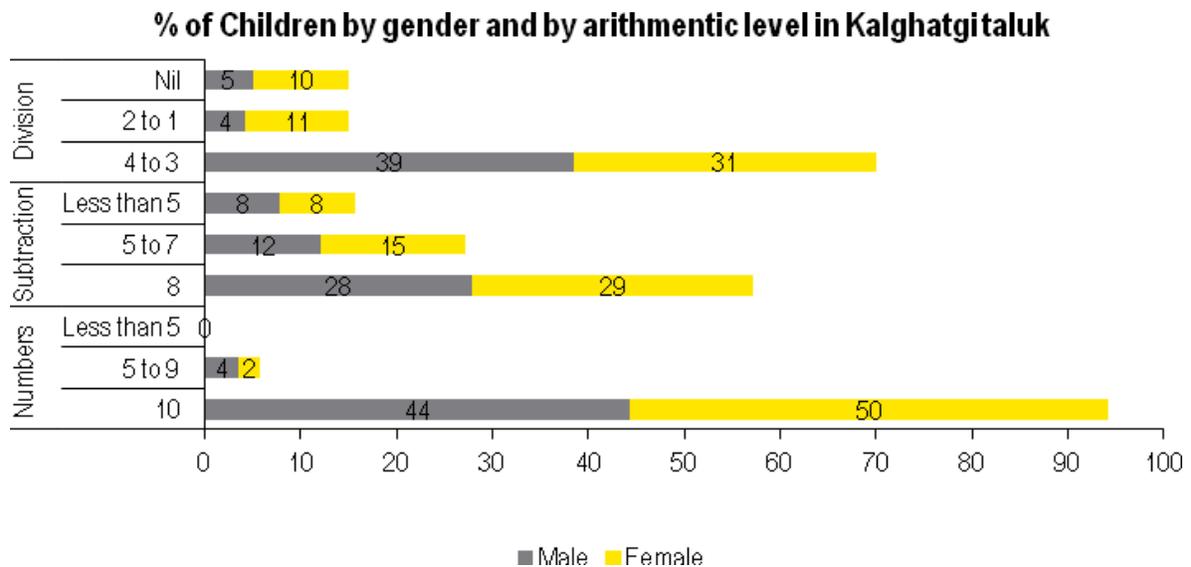
**Ability to do 2 digit subtraction:**

- ▶ On a score of 1 to 8, 29% female students, 28% male students in Kalghatgi taluk were able to do subtraction and received a score of **8 out 8**.
- ▶ On a score of 1 to 8, 30% female student, 24% male student in Hosakote taluk were able to do subtraction and received a score of **8 out 8**.
- ▶ On a score of 1 to 8, 35% female students, 32% male students in Kanakpura taluk were able to do subtraction and received a score of **8 out 8**.

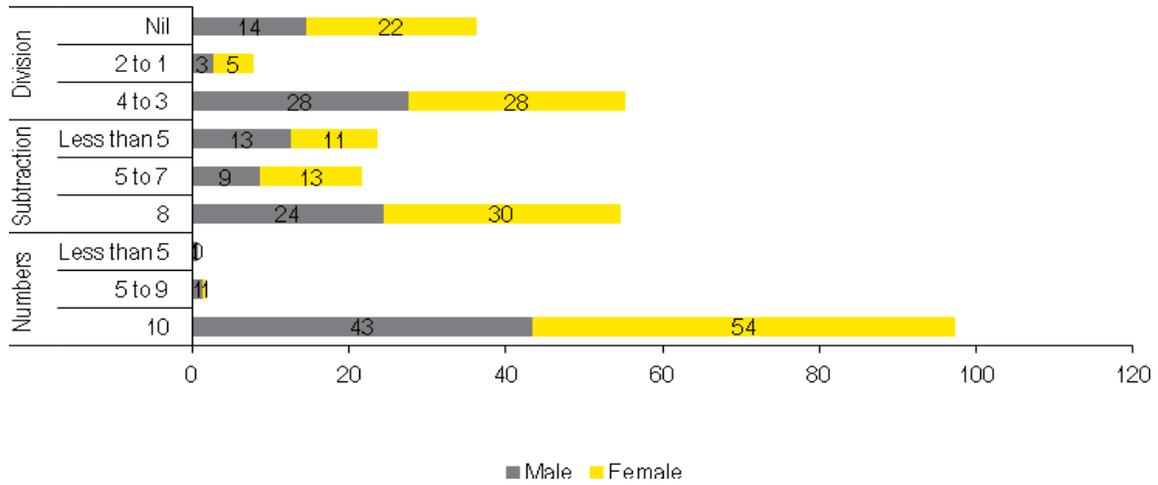
**Ability to do division**

- ▶ On a score of 1 to 4, 39% female students, 31% male students in Kalghatgi taluk were able to do division and received a score between **3 to 4**.
- ▶ On a score of 1 to 4, an equal proportion of female and male students (28% each) in Hosakote taluk was able to do division and received a score between **3 to 4**.
- ▶ On a score of 1 to 4, 41% female students, 33% male students in Kalghatgi taluk were able to do division and received a score between **3 to 4**.

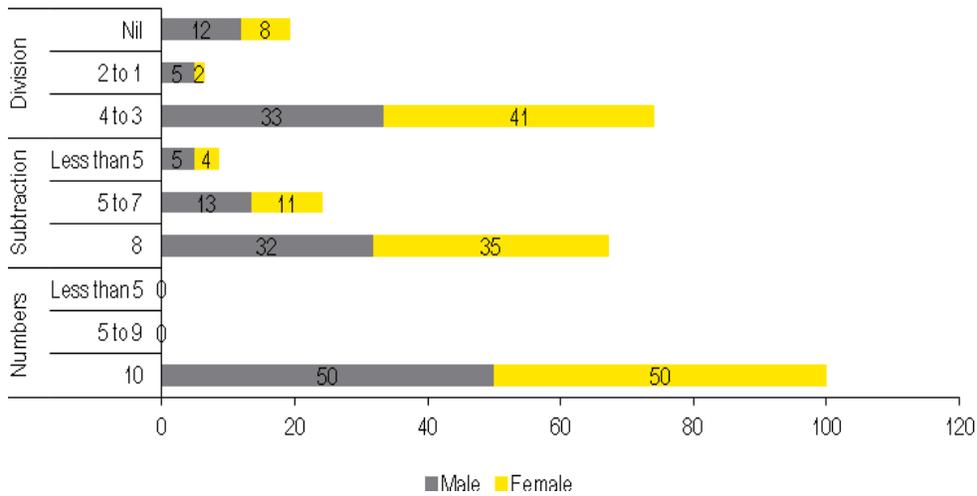
**Figure 4**



**% of Children by gender and by arithmetic level in Hosakote taluk**



**% of children by gender and by arithmetic level in Kanakpura taluk**



Source: Ernst & Young Analysis



## 4. Conclusion

In conclusion one may say that the students studying in schools where Sikshana Foundation have shown better performance on the academic parameters than the average students of rural Karnataka as reflected in the scores of ASER Report.

It is possible that the scores may have shown further variation because of the fact that the study was conducted towards the end of the academic year - after the completion of the annual examinations - when the attendance of the students in school is not mandatory. This could have impacted the quality of the batches selected for the study. A cursory look at the corresponding test scores in the data base maintained by the Foundation in respect of these schools showed that a disproportionate number of children available could possibly have been from the 'failing' category.

- ▶ Despite the above limitation, findings shows that the number of students studying in schools where Sikshana has interventions, have shown better results both in Kannada reading, and arithmetic test.
- ▶ Taluk wise results show that two rural taluks (Kalghatgi, and Kanakpura) have done well in comparison to Hosakote taluk. Since Sikshana Foundation program is primarily a rural program, the two rural taluks have done well compared to semi urban area. The Sikshana team shared that it has been their experience that community participation in rural areas is more than it is in the urban areas. Since it is important to have a three way partnership between the students, school and the community, the impact of the programme is more where this partnership is strong.
- ▶ Gender wise analysis for Kannada reading, and arithmetic test shows that female students have performed well.

We hope the findings of this study will help Sikshana Foundation identify areas where more focused work is required.

## Annexure I : Reading Test

Roll No:

Name of Child:

Name of School:

Kannada Reading

Taluk:

ಕಥೆ

ವಿಮಲ ಕರಿಯನ ತಂಗಿ. ವಿಮಲಗೆ ಕುದುರೆ ಕಂಡರೆ ಒಲವು. ಕರಿಯನಿಗೆ ಕೋತಿ ಕಂಡರೆ ಇಷ್ಟ. ವಿಮಲ ಮತ್ತು ಕರಿಯ ನೀರು ತರಲು ಕುದುರೆ ಮತ್ತು ಕೋತಿಯ ಜೊತೆಗೆ ನೀರಿನ ಕೊಳಕ್ಕೆ ಹೋದರು. ಕೊಳದಿಂದ ನೀರನ್ನು ತಂದು ಕೈಕಾಲು ಮುಖ ತೊಳೆದರು. ಕೋತಿ ಸಂತೋಷದಿಂದ ಲಾಗ ಹಾಕಿ ಕುಣಿಯಿತು. ಕುದುರೆ ಅನಂದದಿಂದ ಕೆನೆಯಿತು. ತಾಯಿ ಹಾಲು ಕುಡಿಯಲು ಕೂಗಿದಳು. ವಿಮಲ ಮತ್ತು ಕರಿಯ ಹಾಲು ಕುಡಿದರು. ಆಗ ನಾಯಿ ಬೊಬ್ಬೆ ಎಂದು ಬೊಗಳಿತು. ಅಮ್ಮ ನಾಯಿಗೂ ಕುಡಿಯಲು ಹಾಲು ನೀಡಿದಳು. ನಂತರ ಇಬ್ಬರೂ ಆಟ ಆಡಲು ಹೊರಗೆ ಹೊರಟರು.

ಪ್ಯಾರಾ

ಸರಸ ಮತ್ತು ಕಮಲ ಗೆಳೆಯರ ಹಾಕಿ ಆಟ ನೋಡಲು ಹೋದರು. ಗೆಳೆಯರು ಹಾಕಿ ಆಟದಲ್ಲಿ ಗೆದ್ದರು. ಇವರಿಗೆ ತುಂಬಾ ಸಂತೋಷವಾಯಿತು. ಮುಂದಿನ ಬಾರಿಯೂ ಆಟದಲ್ಲಿ ಗೆಲ್ಲಬೇಕೆಂದು ಗೆಳೆಯರಿಗೆ ಹೇಳಿ ಹೊರಟರು.

ಅಕ್ಷರ

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ಪದ

ಓಟ	ಮೊಲ
	ಕಾಗೆ
ಭೇದ	ಬರ
ನೀಳ	ಗರಿ
	ಕಪಿ
ದೋಣಿ	ದೀಪ

## Annexure II : Arithmetic Test

Roll No:

Name of Child:

Name of School:

Maths

Taluk:

Q 1 Recognize the following numbers (10-99):

65 \_\_\_\_\_

38 \_\_\_\_\_

92 \_\_\_\_\_

23 \_\_\_\_\_

47 \_\_\_\_\_

72 \_\_\_\_\_

56 \_\_\_\_\_

87 \_\_\_\_\_

29 \_\_\_\_\_

11 \_\_\_\_\_

Q2. Subtract:

$$\begin{array}{r} 51 \\ - 35 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 67 \\ - 48 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 84 \\ - 49 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ - 36 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ - 37 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 31 \\ - 13 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ - 18 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ - 24 \\ \hline \\ \hline \end{array}$$

Q3. Divide:

$$6 \overline{)918}$$

$$7 \overline{)789}$$

$$5 \overline{)983}$$

$$3 \overline{)513}$$