ACCELERATED LEARNING PROGRAM

An End line Evaluation Study

July 2004

Conducted Jointly By RVEC and The Azim Premji Foundation

1. INTRODUCTION

1.1 Background

Azim Premji Foundation is a not for profit organization set up with the vision of transforming the lives of millions of children in India by catalyzing universalisation of elementary education. The area chosen has been identified by the Foundation based on the following criteria:

- High number of out-of-school children;
- Economic backwardness of the geography;
- High number of girl children out of school;
- Poor ratio of Teachers to Children;
- Difficulty in access to schools and
- Poor learning levels.

The Government of Karnataka addresses the issue of bringing back out of school and drop out children in every habitation in Karnataka through its Chinnara Angala program and other programmes such as 'Baa Marali Shaalege' and 'Coolie Inda Shalege'. While these bridge courses run by the Government of Karnataka have been successful in bringing large numbers of children back to school, once mainstreamed these children tend to lag behind the others in their class in terms of acquiring competencies meant for that class due to their earlier absence from school. Hence, they become vulnerable to dropping out again. The Foundation hence decided to launch the Accelerated Learning Program to address this issue.

The Accelerated learning Program is a modification of the Remedial Teaching program of 2002 – 2003 by the Azim Premji Foundation in association with the Government of Karnataka. It was implemented in 16 blocks of the 7 districts of North-East Karnataka consisting Yadgir, Koppal, Raichur, Bellary, Gulbarga, Bijapur, and Bagalkot. The program commenced in July 2003 and concluded in March 2004.

The Program is designed to cater to the needs of children unable to keep pace with the teaching – learning process in a normal classroom situation. The program looks into the specific learning needs of children where a child is taught the competencies he/she is lacking with a mechanism to track the progress of each child and ensure that all the necessary competencies commensurate with his/ her age and class are mastered by the child.

The aims of the Accelerated Learning Program are:

a) Ensure retention of potential drop-outs and children mainstreamed through bridge courses such as the Chinnara Angala in Karnataka into the formal school by enabling them to learn at their pace.
b) Increase learning levels of children through a child centered / paced, competency based approach.
c) Initiate greater community/parental participation in school related activities so as to ensure retention of children and increase enrollment.

The ALP at each centre is carried out by a volunteer belonging to the local community selected after a rigorous process. The volunteer is trained by the Foundation to use the pedagogical package that has also been developed for multilevel learning that has been devised for the program. The programme is run within the school, during school hours and with the active support of the Head teacher. The centres implementing the ALP are monitored by area coordinators on a regular basis by checking the quality of teaching and learning.

The volunteer maps the competencies of each child on a chart (Pragati Nota) throughout the programme. From the chart, at any point of time, it is possible for a person who visits the centre to know where a particular child stands vis-à-vis the current competency and the progress achieved. The competencies for both Kannada and Mathematics are grouped for each class as per the expected attainment levels. The ALP has targets for children in each class. These targets are the expected levels that the child was supposed to achieve at the end of the previous year.

Target Competency Levels

Class	Kannada	Mathematics
2	31	5
3	59	12
4	73	21
5	73	31
6	73	31

Thus, a child in class 3 during July (the start of the ALP) is expected to have attained the first 59 competencies in Kannada and the first 12 competencies in Maths by the end of class 2. Since the identified children are short of these levels, the ALP package is designed to help them reach those expected target levels at their own pace.

A need was felt to determine the effectiveness of the ALP intervention through an appropriate study. Hence a research was commissioned by the Foundation to be carried out by the **Rashtriya Vidyalaya Educational Consortium (RVEC).** This report presents the key aspects of the study.

1.2 Research objectives

The objectives of the research study were as follows:

1. Measure the impact of the program in terms of the learning achievement of the children
2. To determine if the attendance of the children has any correlation with learning achievements
3. To identify aspects that aide or hinder the successful implementation of the program

1.3 Methodology

The learning achievement levels were determined with the help of competency-based tests (which included both written and oral measurements) for Kannada and for Mathematics. One test each was designed for Kannada and Mathematics. The same test was administered to children from all classes. Depending upon the questions that could be answered by the child, her/his competency level was determined. The study was designed by RVEC while the data collection was carried out by a team supervised by the Foundations Area Coordinators.

The Baseline tests were conducted at the beginning of the program during July-August 2003. Children identified by the respective head teachers were administered the tests. Similar tests were administered towards the end of the program during March 2004 to the same children. Lists of names of children in the ALP program were used to ensure that the end line tests were administered to the right children. The baseline tests were conducted by the ALP volunteers. An independent team of evaluators with previous experience of LGP evaluation conducted the end line tests. This team was briefed and trained prior to the actual test.

The study comprised experimental group and control group schools. All the schools where the ALP program ran for the entire duration (July 2003 to March 2004) formed the universe for the experimental group. The schools which had been identified for the program (and where the baseline test was carried out) but where ALP could not be implemented for various reasons formed the universe for the control group. The sample planned for the end line study comprised 96 experimental group schools selected at random and 21 control group schools. In addition, 25 of the experimental group schools were identified by RVEC for intensive evaluation.

The actual sample of schools for which data has been analysed and presented here comprises 71 experimental group and 15 control group schools. The intensive study relates to 24 schools. The responding sample for the study thus comprised 3347 children in Kannada experimental group and 440 in Kannada control group. The corresponding numbers for Mathematics were 3413 and 394 respectively. The break-up by class is as follows

Sample Break-up

	Kannada		**Mathematics**	
Class	Experimental	Control	Experimental	Control
2	554	89	549	70
3	781	116	810	94
4	788	101	824	98
5	724	120	746	118
6	500	14	484	14
All	3347	440	3413	394

As can be seen, the sample sizes are large in all classes for both subjects in the two groups except class 6 in the control group. The findings for that sub category have hence got to be viewed with caution.

1.4 Limitations

The findings presented later in this report need to be viewed in the context of the following limitations.

1. As indicated earlier, **a** group of schools had been identified and planned to be used as the control group. These schools were not identified at random, but were part of the group due to environmental circumstances (where the program could not be implemented due to lack of volunteers etc). Subsequent analysis of data indicates that the characteristics of these schools may be not strictly comparable to the experimental group schools. Hence, comparative analysis of these two groups of schools has not been presented as the major basis of assessment. It has been provided as a subsection for those interested.
2. The number of students who actually took the endline test is about 40% less than the strength of the classes for the program. This absence of children is not strictly a random occurrence. Hence, caution needs to be exercised in extrapolating the findings from the study to the entire program.
3. In some centres, teachers / other adults were found to be assisting the children in answering the endline test. These centres have had to be deleted from the sample for analysis.

2. FINDINGS

2.1 ANALYSIS AND REPORTING STRUCTURE

Findings are presented separately for Kannada and Mathematics subjects for ease of reference. All measurements are in terms of 'number of competencies'. The end line achievements, proportion of children reaching or exceeding 'target competencies' and the net gain in competencies is discussed separately. All these analysis are presented by class of the child. Additional analysis has been carried out to understand if there are any gender wise differences, correlation of attendance with achievement, comparison of Pragati Nota final result with achievement, age wise performance and block wise results. Qualitative feedback collected during the intensive study phase is provided separately.

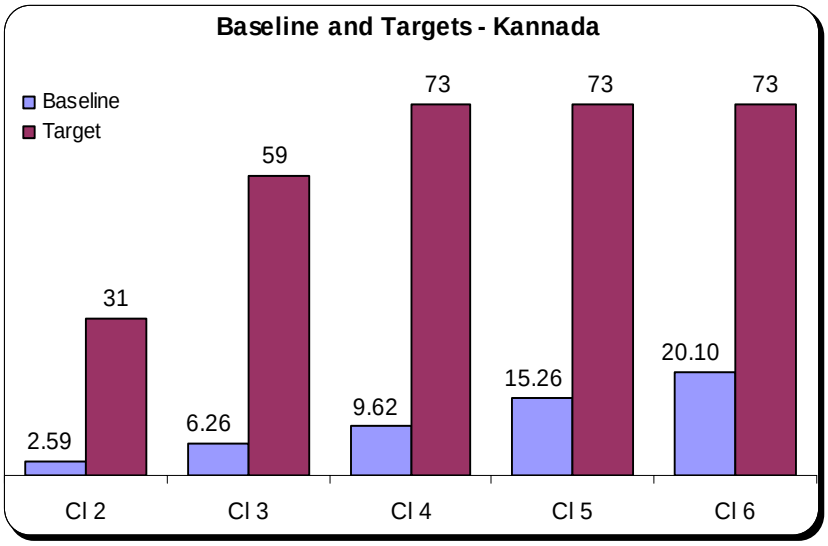
2.2 MAIN FINDINGS - KANNADA

Baseline achievement

The mean baseline achievement of the sample of children in Kannada is given below. Data on the respective targets is also presented alongside.

Baseline Achievement and target Levels

Class	N	Baseline Mean	Target
2	554	2.59	31
3	781	6.26	59
4	788	9.62	73
5	724	15.26	73
6	500	20.10	73
All	3347	10.44	



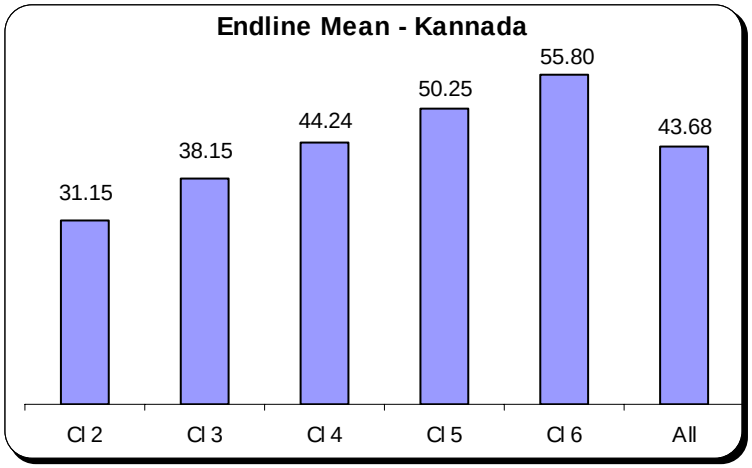
As can be seen above, the mean baseline level competencies are increasing by class, as to be expected. However, what needs to be noticed is that even at class 6 level, the mean (20.10) is substantially below the expected entry level target for class 2 (31).

End line achievement levels

The average end line achievement of competencies by class is as follows:

Mean Endline Achievement

Class	N	End line Mean
2	554	31.15
3	781	38.15
4	788	44.24
5	724	50.25
6	500	55.80
All	3347	43.68



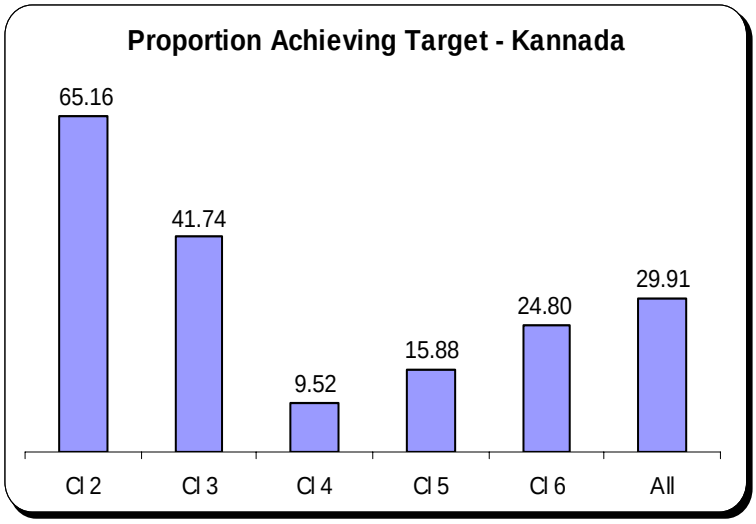
The data shows that the end line performance is increasing steadily by class, as is to be expected. It is interesting to note that the mean endline score for class 2 (31.15) is marginally higher than the target (31). This implies that some of the children have gone beyond their expected levels. This is understandable in the context of the fact that these children are also simultaneously attending their classes in regular school.

Achievement levels vis-à-vis targets

On a total sample basis, about 30% of the experimental group children have achieved (or exceeded) their target competency levels. A further about 39% have been able to reach beyond 50% of their target. On an overall basis, about 18% children have not benefited from the program at all.

Achievement Levels vis-à-vis Targets

Class	N	100% +	50 -100%	Below 50%	Negligible or nil
2	554	65.16%	9.39%	1.15%	24.3%
3	781	41.74%	35.08%	3.68%	19.5%
4	788	9.52%	43.41%	32.88%	14.2%
5	724	15.88%	50.00%	19.72%	14.4%
6	500	24.80%	53.00%	4.0%	16.2%
All	3347	29.91%	38.69%	13.9%	17.5%



As can be seen, higher success rate (in terms of reaching target levels) is in the lower classes where the difference to be bridged is smaller. The success rate drops sharply at class 4 level where, the gap to be bridged from the baseline is the highest.

Target Achievement

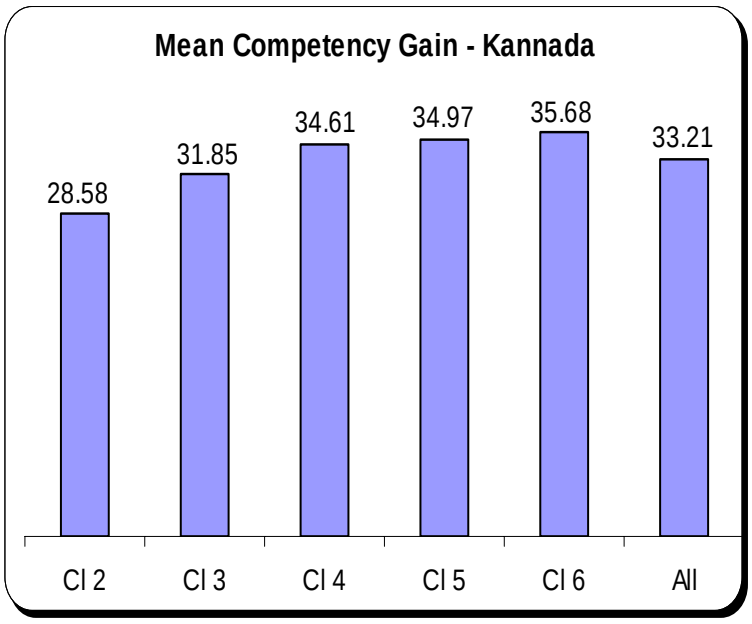
Class	Gap between target and baseline levels	Proportion reaching target
2	28.41	65.16%
3	52.74	41.74%
4	63.38	9.52%
5	57.74	15.88%
6	52.90	24.80%

Gain analysis

This analysis measured as Endline competencies – Baseline competencies is presented below.

Average Competency Gains

Class	N	Mean Gain
2	552	28.58
3	779	31.85
4	785	34.61
5	723	34.97
6	498	35.68
Total	3337	33.21



The interesting pattern emerging here is the 'plateau' noticeable in the gains after class 2, particularly in classes 4 to 6. On an overall basis also, the gains are in a narrow band of about 29 to 36 competencies with an average competency gain of about 33.

2.2 MAIN FINDINGS - MATHEMATICS

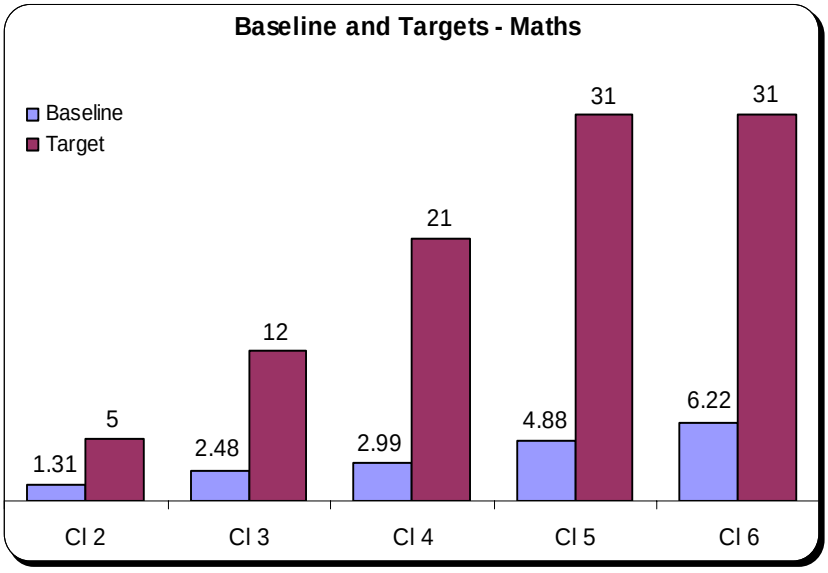
The broad picture emerging from the data for Mathematics follows a broadly similar pattern as Kannada.

Baseline achievement

The mean baseline achievement of the sample of children in Maths is given below. Data on the respective targets is also presented alongside.

Baseline Achievement and target Levels

Class	N	Baseline Mean	Target
2	554	1.39	5
3	781	2.48	12
4	788	2.99	21
5	724	4.88	31
6	500	6.22	31
All	3347	3.47	



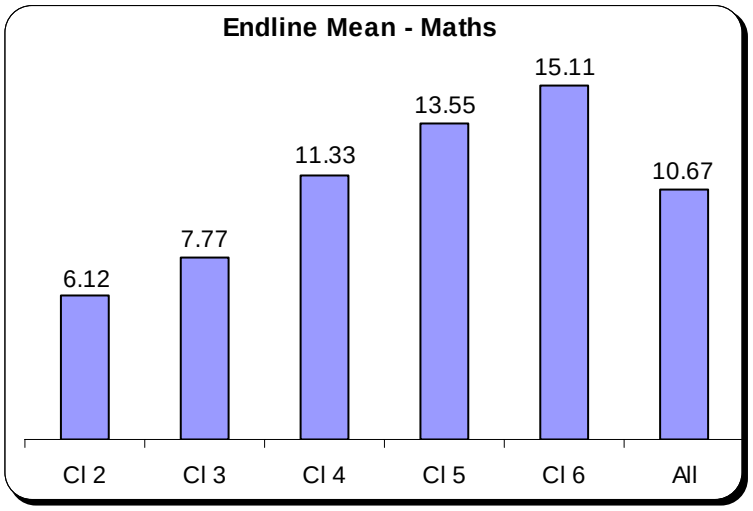
Here too, the mean baseline levels are increasing with class. However, it is interesting to note that unlike in Kannada, the mean baseline levels in class 5 and class 6 are close to or well above class 2 target.

Endline achievement levels

The end line achievement levels for mathematics are given below.

Mean Endline achievement

Class	N	Endline Mean
2	549	6.12
3	810	7.77
4	824	11.33
5	746	13.55
6	484	15.11
Total	3413	10.67



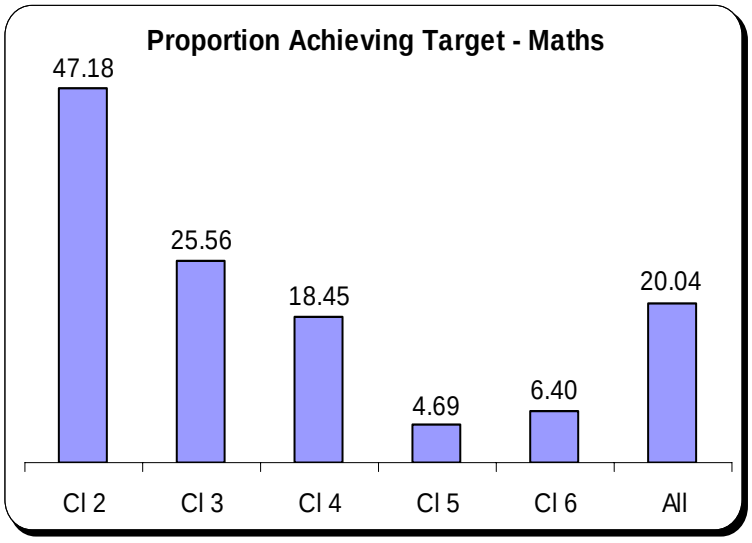
The findings show that the end line performance in Mathematics is increasing by class, as to be expected. The trend is very similar to the performance observed in Kannada. Here too, the mean achievement in class 2 is higher than the target for the class.

Achievement vis-à-vis targets

On an overall basis, 20% of children in the experimental group have reached or exceeded the target and about the same proportion (19.8%) have reached the target in the control group.

Achievement vis-à-vis target

Class	N	100% +	50-100%	Below 50%	Negligible or nil
2	549	47.18%	0.00%	36.12%	16.7%
3	810	25.56%	14.56%	39.18%	20.7%
4	824	18.45%	24.39%	40.76%	16.4%
5	746	4.69%	21.18%	54.63%	19.5%
6	484	6.40%	25.83%	59.37%	18.4%
All	3413	20.04%	17.61%	43.92%	18.4%



Here, as can be seen, the target achievement proportion drops after class 2 and very sharply so at class 5 level. This is in line with the gap to be bridged in the various classes. The gap is the highest in class 5. A summary is given below.

Gap and Target Achievement

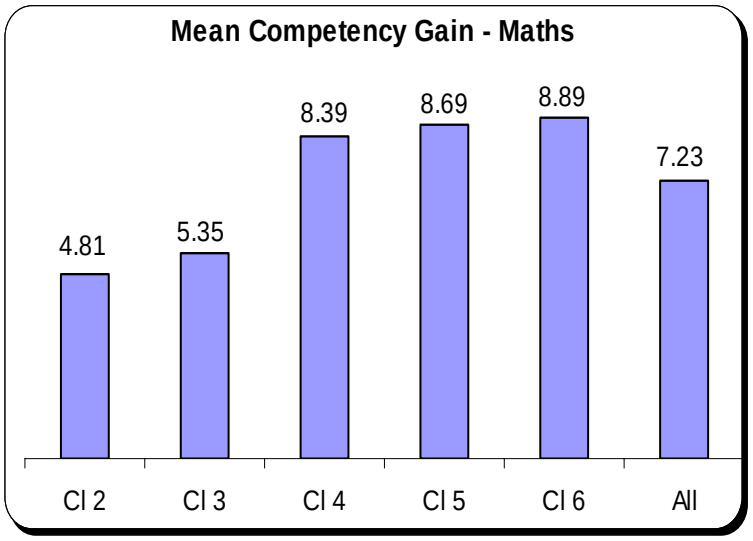
Class	Gap between target and baseline levels	Proportion reaching target
2	3.69	47.18%
3	9.52	25.56%
4	18.01	18.45%
5	26.12	4.69%
6	24.78	6.40%

Gain analysis

The competency gain (Endline –Baseline) is summarised below.

Mean competency gains

Class	N	Mean Gain
2	549	4.81
3	810	5.35
4	824	8.39
5	746	8.69
6	484	8.89
All	3413	7.23



The number of competencies gained on an average in maths shows a pattern. In class 2 and 3, the achievement level is about 5 while in classes 4 to 6, the achievement plateaus at about 8.5. On an average, across all classes, the mean gain is a little more than 7 competencies.

2.4 ATTENDANCE ANALYSIS

Attendance data of the children participating in the program was analysed to determine patterns if any. Attendance during the year in the regular class was used for this analysis, carried out separately for Kannada and Maths. The hypothesis tested was that performance of the child as determined by the achievement test was correlated to the child's attendance in class.

The spread of attendance for the ALP participating children was found to be as follows.

Attendance rate	Proportion of children
Up to 60% days	7.7%
61 - 70% of days	9.1%
71 – 80% of days	16.9%
81 – 90% of days	27.3%
Over 90% of days	39.0%

As can be seen, almost 85% of the children have registered 'regular attendance' i.e. attendance of over 705 of the days. The attendance was sought to be correlated to the 'competency gain' in Kannada and in Maths. The competency gain was treated as the dependent variable while the attendance was the predictor variable. In the case of both subjects, no significant correlation was observed.

Subject	Pearson Correlation	Significance level	Status
Kannada	0.017	0.338	Not significant
Maths	0.018	0.293	Not significant

In other words, the data does not establish any link between attendance and achievement. This however has to be viewed with some caution. The attendance data was collected from the school registers. There is some reason to believe that this may not be totally reliable. Hence, this conclusion should not be extrapolated to draw conclusions at a larger level.

2.5 COMPARISON WITH PRAGATI NOTA

The volunteers maintained a record of the progress of each child in each subject on a continuous basis. This was to indicate the completion of all tasks related to the competencies. Thus, the last task marked as completed would indicate the maximum number of competencies acquired by the child. This level indicated by the Pragati Nota was compared with the performance in the endline achievement test. The findings are summarized below.

Comparison of Pragati Nota and Endline Test Status

Difference between Pragati Nota level and Endline level	Kannada	Maths
PN very much less than endline	34.1%	20.7%
PN just below endline *	2.1%	4.7%
PN equal to endline	3.8%	6.1%
PN just higher than endline *	8.0%	2.7%
PN much higher than endline	52.0%	62.8%

(* just below / just higher refers to +/- 2%)

The data thus indicates that there is almost no mach between the Pragati Nota final markings and the Endline test measurement. The Pragati Nota is perhaps an indication of the inputs provided by the volunteers but does not necessarily reflect that mastery of the competencies acquired by the children.

2.6 GENDER WISE ANALYSIS

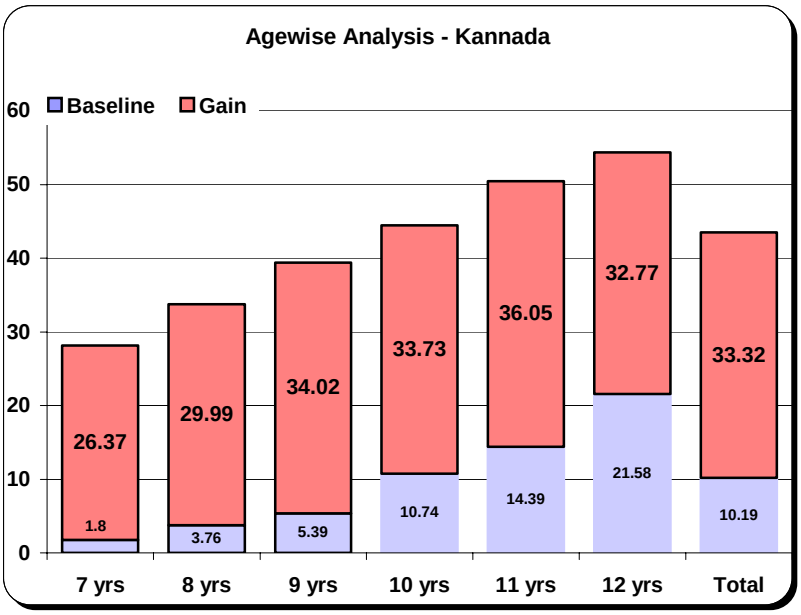
The endline achievement test data was analysed separately for boys and girls to determine if there are any differences in performance. The data for both shows that the performance is similar in Kannada as well as in Maths and follows the overall trend for all children put together. In other words, this data does not show any significant differences in acquisition of competencies by boys and girls.

2.7 AGE WISE ANALYSIS

The children in any given class are typically of different age levels. The age difference ranges between about 2 – 3 years. The test achievement data was analysed by age within a class to determine patterns if any. This is summarized below separately for Kannada and Maths.

Overall Age wise Kannada Performance

Age	Baseline	Endline Test	Gain
7 yrs	1.8	28.08	26.37
8 yrs	3.76	33.75	29.99
9 yrs	5.39	39.46	34.02
10 yrs	10.74	44.5	33.73
11 yrs	14.39	50.47	36.05
12 yrs	21.58	54.35	32.77
13 yrs	18.88	52.2	33.32
All	10.19	43.46	33.25

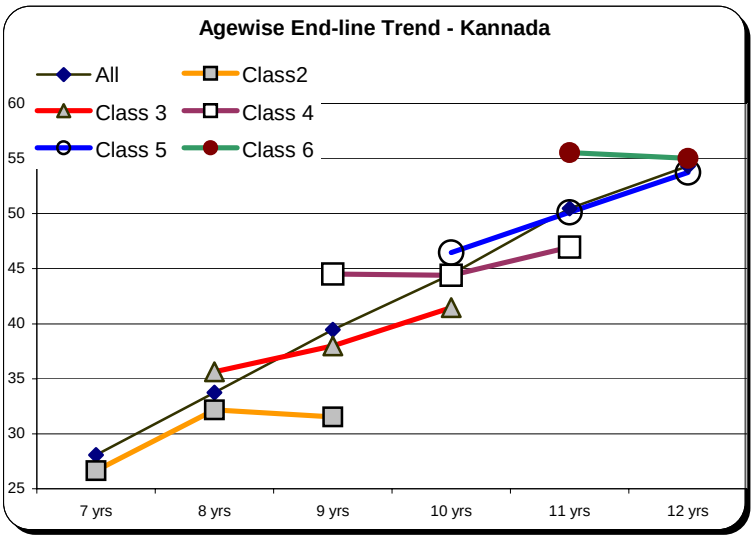


If we look at the endline performance by age within a class, the following picture emerges.

Agewise Endline Levels in Each Class - Kannada

Age	All classes	Class2	Class 3	Class 4	Class 5	Class 6
7 yrs	28.08	26.67				
8 yrs	33.75	32.18	35.62			
9 yrs	39.46	31.54	37.99	44.51		
10 yrs	44.50		41.47	44.39	46.46	
11 yrs	50.47			46.95	50.13	55.56
12 yrs	54.35				53.75	55.04
ALL	43.35					

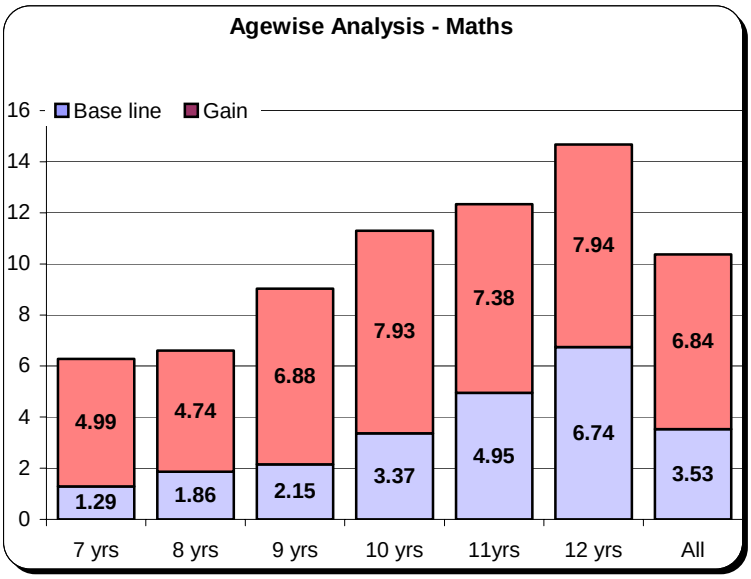
As can be seen, within a class, the performance improves in general by age. An older child in a class performs better than a younger child in the same class in Kannada.



In Maths as well, a broadly similar picture emerges.

Overall Age wise Maths Performance

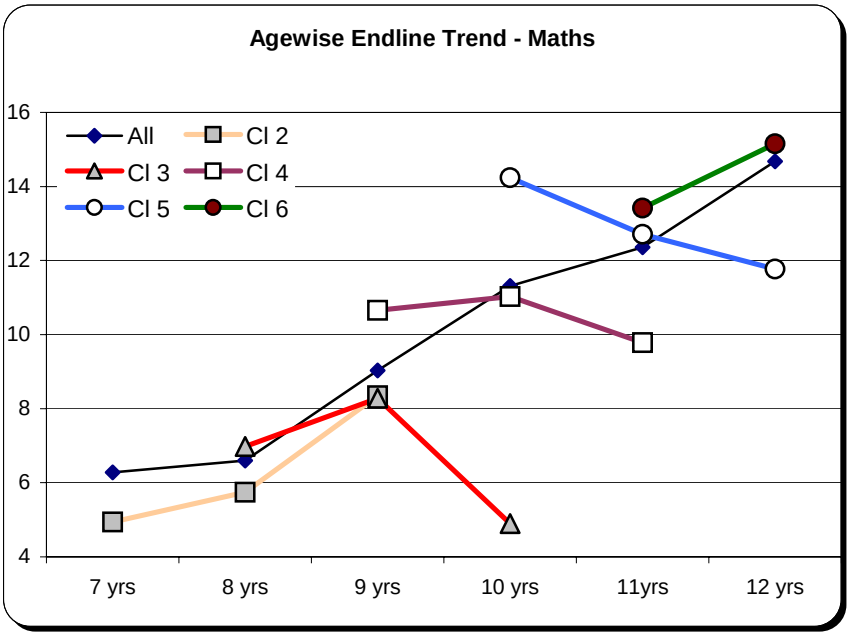
Age	Base line	Endline Test	Gain
7 yrs	1.29	6.28	4.99
8 yrs	1.86	6.6	4.74
9 yrs	2.15	9.03	6.88
10 yrs	3.37	11.31	7.93
11 yrs	4.95	12.36	7.38
12 yrs	6.74	14.68	7.94
All	3.53	10.38	6.84



The age wise endline performance by class for Maths is as follows

Age wise Endline Levels in Each Class - Maths

Age	All Classes	Class 2	Class 3	Class 4	Class 5	Class 6
7 yrs	6.28	4.94				
8 yrs	6.6	5.74	6.98			
9 yrs	9.03	8.35	8.28	10.66		
10 yrs	11.31		4.9	11.03	14.24	
11yrs	12.36			9.78	12.71	13.42
12 yrs	14.68				11.77	15.15
All	10.38					



Unlike in the case of Kannada, the trend by age is not very sharp or clear. In some classes, the achievement improves with age in the same class, while in others no such pattern is visible.

2.9 CONTROL GROUP ANALYSIS

As indicated earlier, the control group was not identified randomly. Hence, the findings are to be viewed with caution. The comparative tables are presented below for information separately for Kannada and Maths.

Kannada Performance

	Baseline Mean		Endline Mean		Mean Gain	
Class	**Exp grp**	**Cntrl grp**	**Exp grp**	**Cntrl grp**	**Exp grp**	**Cntrl grp**
Cl 2	2.59	11.64	31.15	32.28	28.58	20.64
Cl 3	6.26	20.63	38.15	39.84	31.85	18.98
Cl 4	9.62	28.22	44.24	44.00	34.61	15.56
Cl 5	15.26	27.43	50.25	49.63	34.97	22.20
Cl 6	20.10	60.21	55.80	62.00	35.68	1.79
All	10.44	23.66	43.68	42.64	33.21	18.87

Maths Performance

	Baseline Mean		Endline Mean		Mean Gain	
Class	**Exp grp**	**Cntrl grp**	**Exp grp**	**Cntrl grp**	**Exp grp**	**Cntrl grp**
Cl 2	1.31	3.13	6.12	5.77	4.81	2.62
Cl 3	2.48	7.18	7.77	8.74	5.35	1.49
Cl 4	2.99	8.69	11.33	9.37	8.39	0.75
Cl 5	4.88	11.86	13.55	10.51	8.69	0.00
Cl 6	6.22	25.57	15.11	21.86	8.89	0.00
All	3.47	8.94	10.67	9.37	7.23	0.45

As can be seen, there is significant difference in the baseline scores between experimental and control group schools. This imp acts the gain data and other parameters.

2.11 BLOCK WISE PERFORMANCE

Data has been analysed by block in the 7 districts. This is presented in the annexures for reference. The summary in the form of the 5 top and 5 bottom blocks in terms of overall performance in Kannada and Maths is given below.

Block wise performance

Kannada		Maths	
Top 5	**Bottom 5**	**Top 5**	**Bottom 5**
Afzalpur	Chittapur	Shahpur	Manvi
Kushtagi	Chincholi	Shorapur	Deodurga
Lingsugur	Shahpur	Sindhanur	Jewargi
Sirguppa	Jewargi	Sindhagi	Chittapur
Shorapur	Deodurga	Afzalpur	Chincholi

2.12 QUALITATIVE FINDINGS

The findings from the intensive study carried out in a few centers and other qualitative observations from the test papers are summarized below. These are the broad conclusions of the research team based on their observations in the schools visited as well as the informal interviews carried out with teachers and children as also the results of the test.

1. Higher competencies like use of consonant words, writing without spelling mistakes, comprehension and sentence structures are not easily learnt in Kannada
2. In Mathematics the verbal problems and division as well as fractions seem to have presented most difficulty in the final test (though the questions in the test were taken from the work sheets they use).
3. There is a need to review the module in Mathematics before use. The competencies considered and the teaching learning process in mathematics is a cause of concern. The sequencing and splitting into learnable basic competencies is needed.
4. The some of the volunteers do not seem to be conversant with basic concepts in Mathematics.
5. The 'Pragati Nota' records only *Task completion* and not competency achievement. This is revealed in test scores where their performance is poor. Many answer scripts in the end lien test were blank.
6. The motivation in children to enrich themselves in learning is not observable in any centre as the sponsors envisaged.
7. *Practice improves learning but practice alone does not help children* climb the ladder of learning smoothly as independent learners
8. Learning at times seems pressurized and forced in a way. The spirit of learning with joyful experiences is missing
9. Children in many cases seem to have developed dependency on volunteers and they reach the level to which volunteers can guide them.
10. Pupil Interaction with teacher is perhaps not adequate

3 CONCLUSIONS

3.1 SUMMARY

The important findings from the study are summarised below for a quick review.

1. The findings for Kannada and Maths follow broadly similar pattern. There are a few aspects on which there are minor differences.

2. The main findings for Kannada are
   - The mean endline achievement levels increase steadily with class and range from about 31 in class 2 to about 56 in class 6.
   - The proportion reaching target levels varies from a high of 65.2% in class 2 and declining steadily to a low of 9.5% in class 4. However, there is an increase thereafter in this measure in class 5 and 6. The mean proportion reaching target across all classes is just under 30%.
   - The proportion reaching target is clearly dependent on the 'gap' that needs to be bridged between the baseline and the target. The gap is clearly and sharply highest in class 4 and lowest in class 2.
   - Analysis of the gains in competencies indicates that there is a clear indicator of the number of competencies which the children are able to learn in a period of a year. This appears to be about 35 competencies.

3. The main findings for Maths are
   - The mean endline achievement levels increase steadily but slowly by class and range from about 6 in class 2 to about 15 in class 6
   - The proportion reaching target levels varies from a high of 47.2% in class 2 and declining sharply thereafter to just about 5 – 6 in classes 5 and 6. The mean proportion across all classes is just under 20%
   - As in the case of Kannada, the target achievement is dependent on the 'gap' from baseline levels which is the lowest (3.7) in class 2 and the highest in class 5 (26.1)
   - The average number of competencies which the children are able to learn in a year seem to range from about 5 to 8.

4. Other findings emerging from the study are
   - There is no correlation between attendance in regular class and achievement of competency gains as per the endline test. This is however based on the attendance data collected from the school registers and hence needs to be viewed with caution
   - Significant mismatch is observed when the final competency markings in the Pragati Nota progress report and the endline test based competency levels of the children
   - There is no significant difference between the performance of boys and girls in any class on any of the parameters
   - Age wise analysis shows that there is an improvement in performance by age. Within the same class, the older children acquire more competencies than the younger children. This trend is more clearly noticeable in Kannada than in Maths.
   - Qualitative feedback indicates need for a re look at the ALP package as there are opportunities to make improvements and fine tune it for better results, particularly in Maths

3.2 CONCLUSIONS

The overall assessment and learning from the study leads to the following conclusions. Along with these, a few suggestions have also been incorporated.

1. The impact of the program measured in terms of proportion reaching target is 30% in Kannada and 20% in Maths. This may appear modest at first sight. These numbers need to be viewed in the context of the environment and the ground realities in terms of the local volunteers used. At this stage, it is worthwhile to also look at the proportion of children who may not have reached their target but who have none the less managed to acquire more than 50% of their targeted competencies – 39% in Kannada and 17% in Maths. These numbers suggest a reasonable level of success. The numbers however need to be viewed in the context of expectations that had been set at the start of the program by the ALP team.

2. The performance in Maths is clearly sharply lower than in Kannada. This aspect needs to be factored in while planning for the future. In any case, there is clearly an opportunity to make improvements in the program, both in Maths and in Kannada as well.

3. There is a need to re look at the ALP package in its entirety to improve its effectiveness and impact. While the basic structure could remain largely the same, some of the details could be modified or fine tuned. The aspects which could be reviewed include both pedagogical as well implementation details.

4. In the implementation aspect, the following need to be considered
   - The program was implemented using locally available volunteers. There are clearly limitations to the caliber of the individuals available. There is thus a need to review the selection criteria, the process and the training. Also, while limiting the choice to the same village has its advantages, it could also severely narrow down the choice. Should this criterion be modified?
   - There is a need to review the progress report (Pragati Nota) structure. How can this be improved?
   - The monitoring process will also need to be suitably modified in the light of the above

5. In the pedagogical area, the following could be looked at
   - The ladder of competencies in Kannada and Maths present a differing picture. While Kannada starts with a large number of competencies in the lower classes with subsequent increments in the numbers reducing, the picture in Maths is reverse. The higher level competencies seem to be posing greater problems. While the ladder would certainly be based on pedagogic principles, is there a case to examine the feasibility of evening out the load, particularly in Maths?
   - Given that the number of competencies which can be mastered by the children in a year is limited, is there a case to limit the ALP program to class 2 and class 3 only and make it more effective by focusing attention on lesser but more basic needs?
   - There a need to incorporate a process to measure mastering of a competency before moving on to the next one in the package. This could improve the effectiveness considerably.

- Will closer cooperation between the volunteer and the regular class teacher help in improving the effectiveness of the package? What form should this cooperation take?
- The learning achievements seem to vary with age of the child. Can this information be used to advantage in creating peer learning groups or in any other way to improve the teaching-learning process?

6. There is an opportunity to carry this program to other regions. However, the issues raised here need to be addressed to improve the design further to make it more effective and efficient.