

EVALUATION OF EARLY LITERACY PROJECT

REPORT
SUBMITTED
TO
SIR RATAN TATA TRUST

विद्यया ऽ मृतमश्नुते



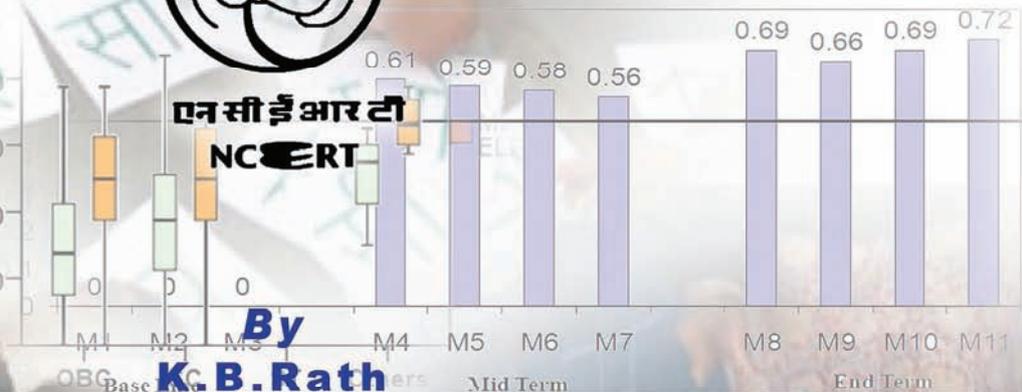
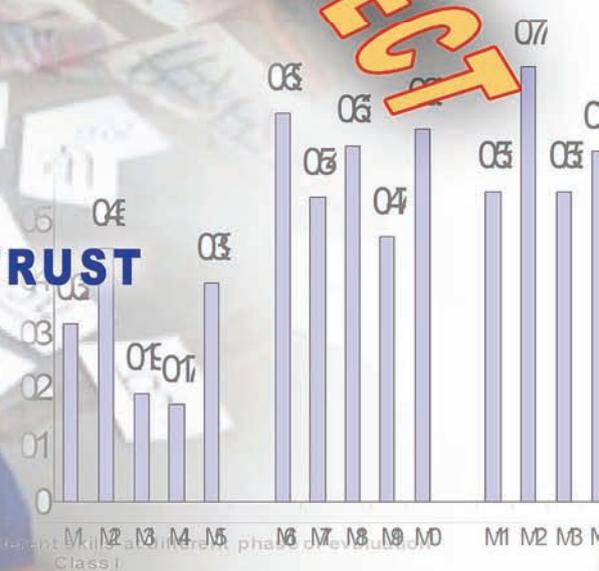
एन सी ई आर टी
NCERT

By

K. B. Rath

Prof. & Head Education

M1: Recognition of alphabets.
M2: Recognition of alphabets.
M3: Total.
M4: Construction of meaningful words.
M5: Recognition of the written words.
M6: Dictation of alphabets, syllables, words and sentences.
M7: Total.
M8: Construction of meaningful words.
M9: Recognition of the written words.
M10: Dictation of alphabets, syllables, words and sentences.
M11: Total.



REGIONAL INSTITUTE OF EDUCATION, AJMER
National Council of Educational Research & Training
2010

EVALUATION OF EARLY LITERACY PROJECT

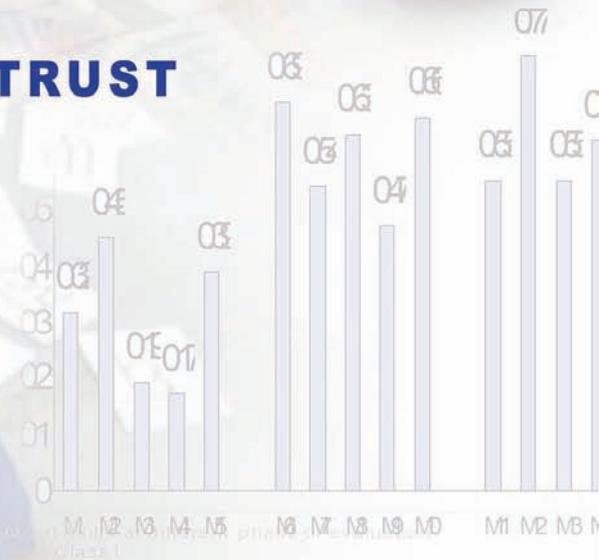
REPORT
SUBMITTED
TO
SIR RATAN TATA TRUST

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

अ	आ	इ
क	का	की
प	पा	पी
म	मा	मी
ल	ला	ली
न	ना	नी



- R.I.E. Team**
K.B.Rath (Team leader)
Usha Sharma (Co-ordinator)
Guman Singh (Member)
Hariom Sharma (Member)
Seetaram Meena (Member)
Abhisek Bharadwaj (Member)

REGIONAL INSTITUTE OF EDUCATION, AJMER
National Council of Educational Research & Training
2010

FOREWORD

It is our great privilege to have been associated with the External Evaluation of Early Literacy Project (ELP). For children of poor families and socially marginalized communities, it is very important to achieve early reading abilities in equal measure as their counterparts in a more linguistically affluent atmosphere. ELP's whole language approach and its contextuality is likely to effect the achievement of the abilities of the children who are taught through ELP approach. The philanthropic attitude and missionary zeal of Director Keerti Jayram is visible in the presentation of this report. I appreciate the efforts and masterly carrying out of the research design and its implementation by Prof. K.B. Rath, Head, Department of Education and his associates in collaboration with the members of the ELP team. Rajasthan Government as well as other State Governments may like to adopt this approach as a part of their education programmes at Primary level. This report can also be used to conduct similar researches in the field of education. I wish every success to the ELP in this effort of social reconstruction through education.

PRINCIPAL

Acknowledgments

I am convinced that a research study is never born without some very important contributions made by individuals whose names are never listed on the title page. It is for this reason that we acknowledge such helpfulness in this section. In the beginning I owe my indebtedness to **Sir Rattan Tata Trust** for sponsoring such evaluation study of ELP project and choosing Regional Institute of Education, Ajmer to conduct it. I express my gratitude to our honorable Principal Prof. V.G. Jadhao to permit us to carry out this study in spite of our many responsible institutional activities.

I express my profound gratitude to **Mrs. Keerti Jayram**, Director of ELP Project and their staff members for constant cooperation during different phases of assessment.

I am also highly grateful to my colleagues **Dr. Usha Sharma**, Coordinator of this evaluation study, **Sri Guman Singh**, **Sri Hari Om Sharma**, **Sri Seeta Ram Meena** and **Sri Abhishek Bhardwaj** for collecting data from eight primary schools inspite of all the hardship in rural areas.

I am also thankful to all the **Headmasters, teachers and students** of primary schools who were kind enough to offer us full cooperation in the collection of adequate and precise data for this evaluation study.

The secretarial assistance provided by **Mr. Sandeep Pareek and Mr. Shailesh Aggarwal** of Education Department is highly appreciable. I convey my deep sense of gratitude to them.

K.B. Rath

CONTENTS

	Page No
<i>Forward</i>	<i>i</i>
<i>Acknowledgments</i>	<i>ii</i>
<i>Contents</i>	<i>iii</i>
Executive Summary	1
Background of Early Literacy Project	9
Reading and writing competencies included in the ELP intervention	17
RIE External Evaluation	18
Evaluation Process	18
Sample	18
Procedure of Evaluation	20
Analysis of Data	21
Description of Variables	21
Average score of students in each School	25
Distribution of Scores in each class	28
Scores of Boys and Girls on Literacy Skills	33
Scores of Different Caste Groups on Literacy Skills	35
Comparison of Intervention Effects	38
Sustainability of Experimental Effect	44
Summary of Quantitative Analysis	45
Qualitative Analysis	47
Procedure of Qualitative Analysis	47
Reading and Writing Competencies of Class I students	48
Reading and writing skills of Class II students	66
Reading and Writing skills of Class - III Students	87
Feedback from Stakeholders	108
Major Findings From Qualitative Analysis	114
Major Findings From Interview	116
Conclusions and recommendations	116
References	119
Appendices	

Executive Summary

Background:

This Early Literacy Project (ELP) has aimed to address the reading and writing processes of young children who come from sociocultural groups that typically underachieve in school, by attempting to develop culturally and linguistically meaningful teaching materials and methods through sustained and active engagement inside classrooms over an entire academic year. The understanding within ELP is that classroom based learning methods that evolve organically and are grounded in the classroom realities will be meaningful for the children who use them, since they will be sensitive to the linguistic and developmental needs of these children, and also to the social contexts that the children and teachers come from. ELP believes that engagement with these contextualized learning methodologies will lead to increased levels of literacy of children from resource poor and marginalized communities. The Early Literacy Project (ELP) has attempted to take into account the vital connections that exist between the ability of children to read and write and the use of instructional texts and classroom materials that are written and read in ways that are familiar and meaningful to the children. Work within the ELP project has been taken up at two levels:

- a) For young beginning level readers and writers the methodologies focus on building the knowledge and skills required for phonological processing and for meaning construction.
- b) For young readers and writers who are at a more advanced level the methodologies aim to strengthen reading and writing with understanding and develop a supportive print rich classroom environment to enhance and strengthen meaningful and purposeful reading and writing

Objectives of ELP

1. To build the foundation competencies which are required for reading and writing with understanding in Hindi, in young learner classrooms for beginning level learners from neo-literate rural backgrounds
2. To develop supportive literacy learning environments inside classrooms, along with methodologies that enhance reading and writing with understanding
3. To facilitate a smooth transition from home to school for young beginning level literacy learners.
4. To motivate children from rural backgrounds to actively engage with reading and writing in ways that they find meaningful and engaging.

The ELP Classroom methodologies

Class 1

In Class 1 the ELP intervention focuses on the developing the following:

- i) Phonological processes for exploring and building awareness of:
 - a) Sound units within spoken language, especially awareness of sounds corresponding to the alpha-syllables or *aksharas*.
 - b) The sound – symbol relationships within written language

ii) The processes of meaning construction for understanding of the sound - symbol- meaning relationships within written language, so that children are able to experience meaningless alphabets and syllables as parts of meaningful written words.

Classes 2 and 3

Development of a facilitative print environment in the classroom for the slightly more advanced level readers and writers with a focus on:

- a) Strengthening reading and writing with understanding
- b) Facilitating active engagement with various kinds of print in a variety of meaningful, natural ways.

The implementation process of the ELP intervention

The following process was used for implementing the ELP intervention. After receiving permission from the State Education Department, an orientation was conducted for the principals of all the eight schools which were included in the study. This was followed with a training workshop for the language teachers from each school. Following this the ELP resource material was distributed to all the eight selected schools through school visits during which the material was shared and discussed with the teachers. Further follow up workshops were also conducted with the teachers at later stage.

The ELP methods were implemented in the intervention schools by an ELP team member who worked along with the regular school teacher. In the non intervention schools the programme was implemented by the regular teacher alone. Visits were made from time to time to the non intervention schools to discuss the implementation and provide support to the teachers who were implementing the programme. At the same time close links were maintained with the district, block and cluster level SSA and Education Department functionaries, who visited the schools from time to time and also, participated in training workshops. Based on a demand from these functionaries training workshops were also conducted for teachers from all the 220 primary schools located within the Silora block of Ajmer district.

Reading and writing competencies included in the ELP intervention

Based on the classroom experiences of Phase 1 and 2, ELP has identified some basic competencies, which are required for building strong foundations for meaningful reading and writing in Hindi. These competencies include aspects of phonological processing, as well as, of meaning construction. Specific classroom based interventions have been designed to develop these competencies within young beginning level readers and writers.

Evaluation Process

An evaluation study was undertaken by the Regional Institute of Education (RIE), Ajmer to assess the performance of students of Classes 1,2 and 3 in response to the ELP intervention in eight rural government schools in Rajasthan. The major objectives of this evaluation study were:

- a) To assess the competencies for reading and writing with understanding in Hindi, in young beginning level learners from neo-literate, rural backgrounds.

b) To find out the effectiveness of classroom based methodologies developed under ELP approach, that enhance reading and writing with understanding and include competencies for phonological processing, as well as for meaning construction.

This study was conducted under the leadership of Prof. K.B Rath, Head Education and the then Dean of Instruction, RIE; and coordinated by Dr. Usha Sharma, Reader, RIE with four teachers from DM school as members. The team members were also assisted by some local volunteers. The team members discussed about the salient features of ELP project with the Director Ms. Keerti Jayram and the team members. It was decided that the effectiveness will be evaluated in three phrases; Baseline (August), Midterm (January) and Endterm (March) on the specific dimensions of literacy scales implicable for particular grade. Multi-wave data were collected to explore the sustainability of treatment during the session. For this purpose, base line assessment was conducted at the beginning of the session before starting the treatment.

Sample

Sample of the study constitutes 8 schools from Silora Panchayat Samiti of Ajmer district. Basically these schools are located in remote rural areas and infrastructural facilities are inadequate. These schools are divided into 2 groups having 4 schools each. One group is managed by the govt. teachers and other is managed by ELP team so far as development of literary skill is concerned. However, the schools managed by govt teachers are treated as control group as there was no systematic intervention as per guidelines of ELP approach. The total sample comprised of 525 students out of which 219 (100 boys and 119 girls) students are in Govt. teacher managed school and 306 (158 boys and 148 girls) are in ELP staff managed school. However, all the students were not present during each phase of assessment.

Procedure of Evaluation

The information was collected from primary and secondary beneficiaries to tap the intervention effects. The primary beneficiaries include students from class I to III and teachers of the respective schools. The secondary beneficiaries include parents, educational officers and evaluation team members. The student's progress on literacy skills was examined through teacher made tests developed on the basis of reading and writing competencies included in the ELP approach. At each phase our team members visited each school and administered the tests. For the purpose of administration all the psychological factors like students' interest, motivation and test anxiety were taken care off. Students were involved in a democratic free atmosphere to answer. Instructions were given to the students in their local dialect as well as Hindi. Detection was conducted in group. However, testing of reading and writing competencies were carried out individually. Certain activities were also conducted to get responses from students.

Analysis of Data

Basically ELP approach focuses on variety of skills at two level. In class I emphasis is given on initial reading and writing skills through linguistically controlled classroom environments. In class II and III reading and writing skills are strengthened by using print rich classroom. So the analysis were made class wise and compared between students managed by Govt. teachers and ELP team. Both descriptive and inferential statistics were used to analyze the data with the help of SPSS software and presented sequentially below.

Major Findings From Quantitative Analysis

1. The basic trend observed from average scores reveals that the mean score of each school increased progressively from baseline assessment to end term evaluation. However, the quantum of increment is comparatively more in case of school managed by ELP staffs.
2. The examination of all the stem and leaf plots in class-I, II and III at different phases of assessment very clearly show the improvement of scores on literacy skills by students managed by ELP team. The progressive trend is also directed towards the end term evaluation which was carried out after the treatment through ELP approach on literacy development. This trend of scores signifies the positive influence of literacy approach adopted by ELP team at two levels of skills development in class I to III.
3. From the box plots, the emerging general trend indicates emphatically that boys and girls were benefitted through ELP approach in terms of learning literacy skills.
4. The trend of increment in different phases of assessment proved that different caste groups were also benefitted from ELP approach on literacy skills development.
5. The result of inferential statistics regarding comparison of mean scores in class I shows that during baseline assessment both the groups did not differ significantly on literacy skills. However, after the treatment i.e. implementation of ELP intervention the students of school managed by ELP team scored better than students of school where interventions were provided by Govt. School teachers. In case of each skill the t-value is highly significant at two different phase of evaluation other than baseline assessment. On the basis of effect size, it is authenticated that the treatment has above average effect as the value exceed the threshold value (.50). Further, the effect has increased significantly towards the end term assessment. It is clearly inferred that long-term intervention on literacy skills in class-I has significant progressive effect.
6. In class II, t-scores calculated for each skill in mid term and end term phase show highly significant difference and the mean scores of students in schools managed by ELP team are significantly higher than the other students. The effect size in each case exceeds the average effect (.50). This shows the above average effect of intervention given by ELP team. Specifically the effect size is increased to wards the end of intervention and individual reading obtained a higher effect size (.80). It shows that reading skills of students is improved to a great extent due to the intervention.
7. In class III the results reveal that there is significant difference between students managed by govt. teachers and ELP team on each skill and in case of each phase of assessment. From the mean scores it is said that students intervened by ELP approach perform far better than students of other group, because of significant t-value and effect size calculated for each skill. But the interpretation of effect size for baseline assessment is difficult as there was no treatment. It is needless to mention that the effect size is significantly less than the threshold value (.50) in baseline assessment. However, the effect size is significantly higher than the threshold value (.50) in case of each skill (except one) in mid term and end term assessment. There is a significant effect of ELP approach so far as development of literacy skills are concerned. The progressive effect is authenticated

by the appearance of high effect size (.77) in case of reading a paragraph with understanding. The effect size of total score also marks an incremental trend towards the end of intervention period.

8. Repeated Measure Analysis of variance compare the within group variance of different repeated measure i.e. baseline, midterm and endterm and calculate F-value with their significant level. It is observed that in case of ELP staff managed schools F-value is highly significant in each class. But in case of Govt. teacher managed schools only the F-value is significant in class-II at 0.05 level. This shows that changes in achievement on literacy skills continued and sustained till the endterm assessment. It means the students of class-II in Govt. teachers managed school also improve their literacy skills to some extent towards the end term assessment. However, the magnitude of variance is very less in comparison to students of schools managed by ELP staff. In case of ELP staff managed school the magnitude of variance is very high in all classes (class I, II, III). It is interpreted that the literacy score obtained by students at baseline, mid term and end term phase improved substantially as treatment progressed from baseline to end term. Such progressive changes also appeared as supplementing evidences for sustainability of experimental effects till the end of treatment.

Major Findings From Qualitative Analysis

Class 1

The baseline for both the intervention (ELP managed) and non intervention (Government teacher managed) schools showed that a majority of students are unable to recognize alphabets. By the mid term assessment a significantly larger number children in the intervention schools showed phonemic awareness i.e. were able to identify the initial sounds of words and match them with the correct alphabet, as against children in the non intervention schools. Evidence of the impact of the intervention was also seen in the word identification skills. The end term assessment which was conducted after about 7 months after the commencement of the ELP intervention indicated that the majority of Class 1 children in the schools managed by the ELP team were able to combine alphabets and syllables to construct meaningful words and then illustrate the meaning of the word through a drawing. This showed their ability to construct meaning from written symbols, which is an important foundation skill for meaningful reading. While most of these words were mono and bi syllabic words, some children have also constructed polysyllabic words; further, some of the words which were constructed also showed evidence of complex cognitive functioning. Some words were in their local language *Marwari*, proving that this task was being undertaken with understanding. The number of children who had attained this competency in the non intervention schools was significantly less, with a large number of children simply copying the alphabets and syllables provided. The impact of the intervention was also visible in the qualitative analysis of writing skills, with error patterns of children of the non intervention schools showing difficulty in sound symbols correspondence while writing dictated words, as well as while constructing words. These kinds of errors were significantly less in the intervention schools. The same was also the case with the writing of dictated sentences, with a qualitative difference in the ability of the children from the ELP managed schools to write sentences.

Class 2

The Baseline assessment did not reveal any significant differences in the ability of both the groups to identify alphabets, syllables and words. The impact of the ELP intervention however becomes visible in the mid term assessment. Here the performance of the intervention schools while constructing meaningful words is significantly superior to that of children from the non intervention schools, with the words that were constructed in the ELP managed schools showing a greater variety and cognitive complexity, such as combining distantly located syllables, reversing syllables or repeating a syllable. These processes were significantly less in the government teacher managed schools, in which more than 50% children were unable to construct words. The midterm assessment repeated the same trend, with a significantly larger number of children in the intervention schools demonstrating a variety of cognitive and linguistic competencies to construct meaningful words and draw picture to illustrate their meanings. Significant differences were also found in the reading comprehension competencies at the sentence level, between the two groups. This was also the case with the ability of the students to read aloud some given sentences.

The mid term assessment of writing skills showed significant improvement in the intervention group for writing dictated alphabets, syllables and words. This progress was sustained in the end term assessment, with a significantly larger number of children being able to write a dictated sentence correctly. The error patterns of the non intervention group while writing sentence were more in the nature of omissions and substitutions, which showed that the children were not reading the sentences with understanding. Such errors were only marginal in the case of the schools managed by ELP.

Class 3

In the baseline assessment children from both the intervention groups were able to recognize alphabets, syllables and words, which included words with some *matras*. However, both groups had problems in combining alphabets and syllables to construct meaningful words. The children from the ELP managed group however showed the ability to repeat syllables and construct words; but both groups had difficulty in constructing words by reversing syllables. The qualitative analysis did not reveal a significant difference between the two groups, during the baseline assessment.

However, the mid term assessment which was conducted after four months showed a significant improvement in the word construction and meaning representation competencies of the ELP managed schools, as compared to the government teacher managed schools. The error patterns in the latter schools did not show any specific trend but they indicate that a large number of children in the non intervention schools had not established the sound symbol relationships required to construct meaningful words, and had therefore constructed a greater number of meaningless words than their peers in the ELP managed schools. The reading comprehension competencies which were assessed through a task which required the children to follow directions for drawing given in five sentences also indicated significantly better performance by the intervention schools. Similar findings were obtained while assessing the fluency of the students while individually reading sentences.

The end term assessment tested reading comprehension through a word classification activity. The findings of the qualitative analysis are significantly in the favour of the intervention schools. Many children from

the non intervention schools wrote the words correctly, but not under the correct category. The reading comprehension, which was assessed through writing answers based on a set of five sentences, as well as through the following of written instructions, revealed a similar trend. This was also found in the case of individualized reading of sentences. The fluency of the ELP managed schools was significantly greater, and even though a few children were unable to read the sentences, they showed a greater improvement in their sentence reading competencies, in comparison to their counterparts from the non intervention schools. Significant differences were also found in the improvement of the writing skills from the baseline to the end term assessment for both the groups.

Major Findings From Interview

In the evaluation study of ELP project the immediate stakeholders related to the project implementation were interviewed in addition to examining the effectiveness of ELP methodologies on class I, II & III Children (target group). The interview schedule that was used contains eight to nine questions related to what, why and how aspects of the ELP project. Different interview schedules were prepared for teachers, education officers and parents. All together eleven teachers, five education offices and two parents were interviewed at the end of the evaluation study. Above all the responses to the interviews indicate that the ELP approach is very effective in developing early literacy skills at early stage of schooling. It promotes conducive teaching-learning environment in govt. primary school even for the first generation learners. Such an approach is the need of the hour and definitely it will sustain the educational improvement of students in the elementary and secondary section.

Recommendation

Based on the above findings the following recommendations are being made:

1. Based on the findings of this Evaluation Study, an evaluation of the existing programmes for Early Literacy within the Indian context may be undertaken for assessing the effectiveness of the cognitive and affective aspects of these existing programmes.
2. With the objective of implementing the RTE Act, the ELP methodologies be utilized within programmes for out of school children to facilitate and promote the effective mainstreaming of such children.
3. Since the ELP methodologies have evolved through a sustained engagement within classroom inside government schools which cater to marginalized children both in the rural and urban context, and these methods have focused on facilitating a smooth home–school transition for such children, therefore these ELP approaches have direct implications for school programmes which cater to children from marginalized and disadvantaged backgrounds. The ELP methodologies may therefore be considered to strengthen foundations of reading and writing in existing school programmes within both the government and non government sectors, especially in schools which cater to children from marginalized communities in the Hindi belt.
4. Further research on children’s natural language processes, reading and writing behaviors and thinking processes is required. Such research has important implications for promoting effective pedagogies

which enhance meaningful school learning and build foundations for the processes of reading and writing. This is a gap area within the Indian context. It is essential to build deeper insights of children's learning behaviours based on research and to be able to critically evaluate existing programmes, as well as methods such as the ELP methods and further improve them. Such initiatives may also be promoted for enhancing reading and writing within other Indian languages which are not based on the *Devanagari* script, such as within tribal languages or languages within the Southern states of India..

5. The major findings of this study along with the methodologies used within the ELP intervention may be shared with teachers, teacher educators' administrators and policy makers.

EVALUATION OF EARLY LITERACY PROJECT

Background of Early Literacy Project*

Early Literacy – importance for life

Reading and writing are essential tools for accessing the technologically driven global world that we find ourselves in. For many children from poor families and socially marginalized communities this world remains out of reach, since they are unable to attain mastery over reading and writing skills. Such children have been found to achieve at lower levels than their more middle-class peers. This is true across nations and throughout the history of schooling. In general, these children start out behind, and fall farther and farther behind as they go through school. Recent research on Early Literacy clearly points out that one of the main reasons for this poor performance is the gap between the school and home environments of such children, which are not addressed adequately. This Early Literacy Project (ELP) has aimed to address the reading and writing processes of young children who come from sociocultural groups that typically underachieve in school, by attempting to develop culturally and linguistically meaningful teaching materials and methods through sustained and active engagement inside classrooms over an entire academic year. The understanding within ELP is that classroom based learning methods that evolve organically and are grounded in the classroom realities will be meaningful for the children who use them, since they will be sensitive to the linguistic and developmental needs of these children, and also to the social contexts that the children and teachers come from. ELP believes that engagement with these contextualized learning methodologies will lead to increased levels of literacy of children from resource poor and marginalized communities. The Early Literacy Project (ELP) has attempted to take into account the vital connections that exist between the ability of children to read and write and the use of instructional texts and classroom materials that are written and read in ways that are familiar and meaningful to the children.

Translated into classroom practice this has implied providing space within the classroom for children's natural behaviours and processes of learning. This has consequently meant providing space for children from diverse back grounds and experiences to interact and engage with language and print in a variety of ways. It has also meant addressing the transition from familiar home environments to the more rigid and formal school environment. For children who come from homes where there is limited access to printed words, the transition to the written mode within schools can be extremely challenging, and therefore needs to be consciously made more accessible and child friendly.

Theoretical perspectives on Early Literacy

Constructivism offers a clear broad philosophical and psychological position that highlights the active role of a reader in the process of construct meaning, while engaging with texts. This thinking suggests that reading is a dynamic process that is accomplished by the reader in interaction with the text, the task, the purpose and the setting or reading situation, and that reading efficiency requires active and flexible approaches, which address these varied factors. Several theories and their concomitant models, from disciplines as varied as cognitive psychology, literary criticism, linguistics, psycholinguistics, socio linguistics, sociology and

*Source: *ELP Document*

anthropology coexist within a constructivist perspective, and serve to add different dimensions to the broad shared understanding of the active and intentional role of a learner within the processes of language literacy acquisition and learning. A few examples of the range of disciplines and theories that have engaged in enquiry from this perspective and which have contributed to building a shared understanding within this field are: Schema Theory (Rumelhart 1977), Readers Response Theory (Rosenblatt, 1978), work within Socio linguistics such as the seminal work of Labov (1972) and Baratz and Shuy (1969), Gumpres and Hymes as well as the work of Psycholinguistics like Frank Smith (1971) and Ken Goodman (1967). All of these have had a major influence on current thinking and research within the field..

A vast amount of work within Early Literacy in the last two decades has been within the socio- cultural tradition and was influenced by the ideas of Russian psychologist Lev Vygotsky, considered that development is inherently a social process, i.e. as opposed to a Piagetian approach wherein development is seen as determined by maturational and organismic forces. In Vygotsky's theory development occurs when the child internalizes from the social sphere. This perspective suggests that the emergence of the child's inner mental world is not a 'natural' outcome of some genetically programmed development; instead it evolves through the child's interactions within the social and interpersonal sphere. Internalization of printed words and their usage by young children also happens in the same way i.e. when these are a part of their social interactions with others who are around them. For example, merely by watching and experiencing other people in their surroundings young infant's scribbles have been seen to 'pick up' the difference in writing a list and writing a note. Within the Vygotskian framework, it is understood that it is through a complex process of socialization in the family that a child develops a predisposition towards print, and a 'literacy set' even before he or she enters the school set up. Research has also shown that interactions that a child has with print in the family setting have a powerful impact on success in language learning at school.

The Emergent Literacy perspective focuses on literacy use. Work within Emergent Literacy has recognized the ways in which the knowledge about print acquired by very young children facilitates the processes of early literacy, and depends to a large extent on print exposure at home. From a completely different angle the work done within the area of Second Language Learning, Krashen, (1982), Cummins (1987), also saw a shift in focus within the early seventies, from the earlier structure and form driven approaches to approaches that focused on language learning as a meaning driven activity, and which drew lessons from children's active and intentional natural processes of acquiring oral language. The works of Agnihotri, Krishna Kumar, Narasimhan, and several others have tried to place some of this thinking within the multilingual, multicultural and diverse Indian context.

Development indicators for Early Literacy

There is much debate in Early Literacy literature about how to introduce letter sounds and word identification skills, and whether these should be taught in a structured and sequenced way or not. Some reading researchers, such as proponents of the reading readiness and bottom – up approach argue strongly for

explicit instruction in phonological and word identification skills. Successful reading is considered to be built upon a hierarchy of sub-skills, which have to be learned systematically, in a given sequence and regularly practiced. An integration of these sub-skills makes possible a fluent reader. Specifically, two strategies require mention here, as they are somewhat opposing in positions. In 'Explicit Phonics', the teacher tells a student what sound comes from an alphabet. As opposed to this is the 'Implicit Phonics', in which starting from words, a teacher gets the student to extract the sound associated with specific alphabets. (For e.g., from 'hit', 'hat' and 'he', the teacher gets the student to extract the sound associated with the alphabet 'h'). The 'top-down' and 'whole language' approaches argue that deliberate teaching of basic elements (letters, sounds, blends, words) merely fragments the process, and distracts the child from the real business of reading. Such an approach also considers that alphabet sounds are abstract for children who, during the process of language acquisition do not hear separate sounds but hear whole words and sentences. The proponents of the top down and whole language approaches to language teaching emphasize 'meaning'. They believe that reading should begin with words and letters that are meaningful for young learners, and linked to their inner speech and lived experience in organic ways. One way of doing this is through teaching letter names and phonemic sounds that arise from authentic contexts, within natural language, to make this a meaningful exercise, and at the same time addresses the diverse needs of learners within a class. Such approaches consider that learning to read and write should occur in such a context where the whole experience is saturated with a sense of meaningfulness for the children involved. In such an approach, there is no place for a meaningless drill of alphabet-sound association. It is argued that children will acquire the sub-skills incidentally, when they are engaged in enjoyable and meaningful reading/writing tasks.

Recent thinking suggests that the most effective approaches for developing initial reading are those that combine extensive and varied exposure to printed texts, along with systematic phonological instruction and awareness of sound segments. Learning the sounds and names of the letters of the alphabet is clearly essential if they are to take possession of this new medium, but without an equal emphasis on the purpose and meaning of reading and writing for them, the mechanical skill may eventually be acquired but the children will have no personal commitment for using them. Although this has been a contentious area, there is a clear indication that all reading materials and programmes need to be grounded in an informed understanding of natural learning processes, learner diversities and the learner backgrounds. The ELP intervention is placed at this interactive position and has attempted to develop methods for:

- a) Building understanding of the 'sound-symbol' correspondence of printed letters and words (phonological processing and development of spellings)
- b) Enabling meaningful engagement with print by facilitating a supportive classroom environment and a variety of meaningful reading and writing activities and interactions.

The Early Literacy Project (ELP) – an over view

The Early Literacy Project (ELP) aims to understand the literacy learning processes of young children who come from sociocultural groups that typically underachieve in school, both within urban and rural contexts;

and further to use this understanding to evolve meaningful teaching methods and facilitative classroom print environments for building strong foundations for reading and writing with understanding, for young neo-literate learners. ELP began with the question that if children learn to speak in natural ways through a facilitative environment, how can this be made to hold true for reading and writing as well? This was the starting point for a slow organic process of developing methodologies which allowed children to interact with the processes of reading and writing in meaningful and non-threatening ways inside classrooms. The ELP methodologies evolved slowly through active and sustained engagement with children and teachers inside classrooms over a period of time.

The effort is to allow methodologies to emerge organically through active engagement with children within classrooms, so that these methods and approaches develop in response to the diverse needs and learning behaviours of children, as well as, through active engagement with the complexities inside classrooms. This process aims to ensure that the ELP approach is grounded in the classroom realities. The project also aims to closely study children's natural literacy behaviours and build a deeper understanding of some aspects of children's processes of learning to read and write in Hindi.

Objectives of ELP

1. To build the foundation competencies which are required for reading and writing with understanding in Hindi, in young learner classrooms for beginning level learners from neo-literate rural backgrounds
2. To develop supportive literacy learning environments inside classrooms, along with methodologies that enhance reading and writing with understanding
3. To facilitate a smooth transition from home to school for young beginning level literacy learners.
4. To motivate children from rural backgrounds to actively engage with reading and writing in ways that they find meaningful and engaging.

Conceptualization of ELP

Work within the ELP project has been taken up at two levels:

- a) For young beginning level readers and writers the methodologies focus on building the knowledge and skills required for phonological processing and for meaning construction.
- b) For young readers and writers who are at a more advanced level the methodologies aim to strengthen reading and writing with understanding and develop a supportive print rich classroom environment to enhance and strengthen meaningful and purposeful reading and writing

The ELP Classroom methodologies

Class 1

In Class 1 the ELP intervention focuses on the developing the following:

- i) Phonological processes for exploring and building awareness of:
 - a) Sound units within spoken language, especially awareness of sounds corresponding to the alpha-syllables or

aksharas.

b) The sound – symbol relationships within written language

ii) The processes of meaning construction for understanding of the sound - symbol- meaning relationships within written language, so that children are able to experience meaningless alphabets and syllables as parts of meaningful written words.

Classes 2 and 3

Development of a facilitative print environment in the classroom for the slightly more advanced level readers and writers with a focus on:

a) Strengthening reading and writing with understanding

b) Facilitating active engagement with various kinds of print in a variety of meaningful, natural ways.

Overview of the ELP intervention strategies

- Provide a balance between a structured programme for introducing young learners to the relationships between letters, sounds and meanings; and opportunities to children for freely and actively exploring these in a variety of natural ways.
- Utilize the inherent character of the *Devanagari* script, which provides a symbol (*akshara*) for each spoken sound. This is done by equipping children to first identify the sound units in each word through the process of syllabification, and then recombining the written forms of the syllables to construct the whole word. This process aims to facilitate efficient reading and writing since it breaks written words into speech (sound) units that young children can easily identify.
- Equip children with the skills of combining syllables (*aksharas*) to construct their own meaningful written words which match their individualized oral vocabularies, and further to visualize the meaning of each word through a drawing. So that from an early stage children begin to relate to written symbols as meaningful and connected to their worlds.
- Link reading and writing activities, inside classrooms, with the children's home languages and experiences so that they can build upon their oral vocabulary and connect to reading and writing in meaningful ways.
- Gradually over two years equip children, to make a smooth transition from their home languages to the language of classroom transaction.
- Once, the children have acquired basic script knowledge and initial reading and writing competencies, provide them with a supportive print rich classroom environment for actively engaging with a variety of informal reading and writing activities in non threatening and meaningful ways.
- In the older classes i.e. Classes 2 and 3 focus on strengthening reading and writing comprehension and other higher order skills like answering questions independently.
- Involve the regular class teachers in the process of developing these methodologies.

The ELP intervention

Phase 1 of the Early Literacy Project (ELP) was designed as an exploratory intervention project which began in July 2006 and sought to find suitable ways to strengthen the foundations for reading and writing in Hindi for diverse groups of young learners within a few mainstream government schools within the urban context of Delhi. Most of the child population in these selected schools was children of migrants who had come to Delhi from different parts of the country. Phase 2 began in Rajasthan in January 2008 with work undertaken in eight night schools within the Silora Panchayat Samiti in the Ajmer District of Rajasthan, in partnership with the Barefoot College of the Social Work and Research Centre, (SWRC), located within the Silora Panchayat Samiti. The total number of night school children covered by the ELP intervention is approximately 180. All the eight night schools in which the ELP intervention was undertaken are administered by the Kadampura Field Center of the S.W.R.C. The ELP methodologies were introduced in these night schools with the idea of adapting the programme content of ELP intervention for SWRC. These interventions were monitored closely through regular meetings, field visits and school based observations. Systematic tracking of learner levels was undertaken through special performance assessment formats designed by ELP; and the capacity building of the night school teachers was ongoing. While implementing the ELP programme in the night schools it has been important to try and build a deeper understanding of the social and environmental frameworks which impact the children's learning, along with the perceived role of education and early literacy by the and their communities. Most of the children who attend the night schools in this area are from the poorest and marginalized communities, who exist on the fringes of survival. These children begin to share a major part of the responsibilities and struggles of day-to-day life with adults in their families, from a very young age. Most of the children work in the day, either at home, or in the fields. A number of them spend a major part of their days grazing their goats and buffaloes, working in the fields or doing domestic chores. A detailed narrative report on the ELP intervention within the SWRC night schools was submitted to SRTT in June 2008.

In July 2008, ELP received permission from the Government of Rajasthan to introduce the Phase 2 intervention in eight rural Government Primary Schools located in the Silora Panchayat Samiti in District Ajmer. These schools are located in the same geographical area as the night schools. The interventions within the government schools covered approximately 500 children i.e girls and boys, who were enrolled in Classes 1, 2 and 3 of the selected schools. In early July 2008 meetings for working out the modalities of the ELP intervention within these schools were held with the District and Block officials after a preliminary round of visits to the selected schools. These consultations with the School Managements / Principals and Block Education Authorities were followed with orientation sessions for the teachers from the selected schools. An External Evaluation of the ELP Phase 2 interventions by the Regional Institute of Education (RIE), Ajmer, was instituted for which the baseline reading and writing observations of children in the selected classes of all the ELP schools were conducted in early August 2009. Regular work in the classrooms commenced in mid August. Informal and ongoing planning and review sessions with teachers, and regular tracking of learner progress, formed an important aspect of monitoring the ELP Phase 2 intervention.

Within both the above contexts i.e. in the night schools and in the day schools, ELP has been engaged with intensive classroom based interventions with young beginning and early readers and writers in Hindi. Through active engagement with classroom processes, ELP found a large number of young learners in the early classes i.e. Classes 1 to 3 read and write mechanically and without understanding, with some of them barely being able to identify alphabets. Based on these observations ELP has identified reading and writing competencies, which are required for building a strong foundation in reading and writing meaningfully, so that young learners in Classes 1 to 3 are adequately equipped to engage with the school curriculum and the content of different subjects with understanding.

The ELP intervention has been designed at two levels:

- a) For developing methodologies required for building strong foundation skills for reading and writing with understanding within Class 1 through the *Varna Samooha* methodology.
- b) For developing a supportive methodologies to enhance and strengthen reading and writing with understanding for the more advanced early literacy learners within Classes 2 and 3.

As mentioned above since July 2006, ELP has been engaged with intensive classroom based interventions with young beginning and early readers and writers in Hindi, within urban and rural contexts. Through this engagement, ELP has found a large number of these young learners read and write mechanically and without understanding, while others can barely read. Within the context of rural Rajasthan it took ELP a few months to just build the basic sound- symbol relationships, which are essential for any meaningful engagement with script-based literacy. Through close classroom observations it has become evident that rural children in Classes 2 and 3 are struggling to grapple with their schools texts, since most of them do not have the foundation skills required for meaningful reading and writing. Most children speak *Marwari* at home, and do not understand the Hindi that is used in school, making curricular transactions difficult. The ELP interventions through Phases 1 and 2 have aimed to address some of these challenges through sustained engagement in the classrooms of all the selected schools. This experience has been vital for adapting the ELP methodologies to the children's context, and to the complex realities inside classrooms in rural Rajasthan.

The intervention methodologies

All the methods and materials were developed over one year's classroom based work in the government schools and efforts were made to also actively engage the regular class teachers in this process.

***Varna Samooha* approach in Class 1**

ELP has evolved the *Varna Samooha* approach for building foundations for beginning reading and writing in Hindi. Within this approach the Hindi alphabet has been re-divided into 6 groupings. The six *varna samooha* groupings are introduced one at a time in a chronological order, with the alphabets and syllables that have been introduced earlier being included in the subsequent *varna samoohas* in a cumulative manner. The sound and symbol correspondence of each alphabet within a *varna samooha* is introduced through activities. While the children are introduced to the selected group of alphabets, they are also exposed to the syllables,

words and texts, which are available within the *varna samooha*, through specially developed charts, poem posters, flash cards and activities. This equips the children to relate to alphabets and syllables as parts of meaningful words, and not as abstract, meaningless syllables.

As an important component of the *varna samooha* approach specially designed *akshara* charts have become an essential element in each classroom, as a socially entrenched tool for word analysis. Children are taught the rhythm of word syllables in fun ways and then taught ways of using the *akshara* charts for alphabet and syllable recognition, and then learn to combine these syllables to make their own meaningful words, even if these are in their home languages. They begin to read and write some words from the poem posters based on *akshara* charts. They read words that others children write. They share these words through word activities. They create words by combining *akshara* flash cards. They express the meanings of the words they have created by making drawings for each word. They play word games. Children learn to read their names, and the names of friends, and use this knowledge to fill up attendance charts in the classroom. They share story books and then move on to writing a few words form these books. Through these specially designed and interrelated experiences children get varied opportunities for meaningful and active interactions with written words. More importantly these methods are designed to allow children opportunities to link classroom experiences with their real and inner worlds in ways that are accepting and non threatening. Children are allowed to freely use their natural home languages in the beginner classrooms, and gradually move towards using the school language over a period of one or two years.

Methods to enhance reading with understanding in Classes 2 and 3

In Delhi ELP developed print rich classes, which allow children to relate to reading and writing in non threatening and meaningful ways. The idea is to enable children to view reading and writing as something that is connected to them and their real worlds and not as something that has to do with school and the curriculum. These classroom environments are also designed to help children make a gradual shift from their home language to the school language. Within the resource poor schools in rural Rajasthan it was not possible to use many of these methodologies that evolved in classrooms in Delhi. Most children in these rural schools come from home backgrounds in which they have practically no print exposure. They bring with them rich oral traditions. The challenge for ELP therefore has been to tap the linguistic and cultural resources that the children bring into the classroom while building foundations for meaningful reading and writing.

Once the children have been through the *varna samooha* approach and attained mastery over the phonological processing required for word and sentence construction, the focus of the ELP intervention shifted to reading comprehension. In Classes 2 and 3 special methodologies were evolved for enhancing the processes of reading and writing with understanding. These included the following: word wall activities; shared writing; reading and writing activities based on poem posters; work sheets to facilitate the skills of independently answering questions based on pictorial or short written texts. Some of these methodologies are still in the process of evolving, since many of the methods used in Delhi are not applicable to children in villages, most of

whom have very little exposure to print in their home and village environments. ELP believes that once a child is able to independently read, write and answer written questions, the child is equipped to engage meaningfully with different curricular content.

Reading and writing competencies included in the ELP intervention

Based on the classroom experiences of Phase 1 and 2, ELP has identified some basic competencies, which are required for building strong foundations for meaningful reading and writing in Hindi. These competencies include aspects of phonological processing, as well as, of meaning construction. Specific classroom based interventions have been designed to develop these competencies within young beginning level readers and writers. These competencies and the corresponding ELP interventions, which address each of them, are listed in the table below:

Reading and Writing Competencies being addressed through the ELP intervention for Classes 1 to 3	
R /W competencies in Hindi (Classes 1 to 3)	ELP intervention
Motivation for R/W	<ul style="list-style-type: none"> - Development of non threatening and meaningful print rich classroom - Use of home language, familiar words and real life experiences within classroom R/W activities - Gradual transition from home language to school language by Class 3
Recognition of alphabet shapes (R/W)	<ul style="list-style-type: none"> - Exposure to a one or two selected consonants, vowels and matras at a time, through 6 groupings called varna samoohas - Activities for eye- hand coordination, finer muscle coordination, spatial perception and direction flow required for writing alphabets
Sound symbol correspondence	<ul style="list-style-type: none"> - Classification of familiar objects based on initial alphabet sound /symbol (use of home language) - Individualized identification and drawing of objects beginning with a particular alphabet (use of home language) - Recognition of alphabets and syllables sounds / symbols within akshara charts - Activities based on akshara flash cards - Identification of initial / end sounds and symbols of spoken words.
Word recognition (R/W)	<ul style="list-style-type: none"> - R/W activities based on word wall (shabd diwar) - Word games - Worksheets
Construction of meaningful words (R/W)	<ul style="list-style-type: none"> - Individualized use of akshara chart for combining alphabets / syllables to construct meaningful words (use of home language) - Visualizing the meanings of individually constructed words through drawings - Games /activities based on word walls - Akshara flash cards for word construction - Worksheets
Reading comprehension	<ul style="list-style-type: none"> - Poem posters - Worksheets - Activities based on children's literature
R / W of continuous texts (e.g. paragraphs, short stories, poems etc)	<ul style="list-style-type: none"> - Shared writing - Poem writing - Worksheets - Writing based on story books - R/ W activities based on classroom displays and print elements in the classroom
Answering questions independently (R / W)	<ul style="list-style-type: none"> - Questions based on shared writing - Worksheets

RIE External Evaluation

Evaluation Process

An evaluation study was undertaken by the Regional Institute of Education (RIE), Ajmer to assess the performance of students of Classes 1,2 and 3 in response to the ELP intervention in eight rural government schools in Rajasthan. The major objectives of this evaluation study were:

- a) To assess the competencies for reading and writing with understanding in Hindi, in young beginning level learners from neo-literate, rural backgrounds.
- b) To find out the effectiveness of classroom based methodologies developed under ELP approach, that enhance reading and writing with understanding and include competencies for phonological processing, as well as for meaning construction.

This study was conducted under the leadership of Prof. K.B Rath, Head Education and the then Dean of Instruction, RIE; and coordinated by Dr. Usha Sharma, Reader, RIE. The evaluation team consisted of teachers from the DM School of the Institute which are given below:

Prof. K. B. Rath	Team leader
Dr. Usha Sharma	Coordinator
Shri Ghuman Singh	Member
Shri Hari Om Sharma	Member
Shri Sita Ram Meena	Member
Shri Abhishek Bhardwaj	Member

The team members were assisted by some local volunteers. The team members discussed about the salient features of ELP project with the Director Ms. Keerti Jayram and the team members. The pattern and schedule of evaluation were decided in the meeting as below:

Table - 1

Evaluation Schedule for ELP Project			
Phase	Month	Date	
		From	To
Baseline	August	4-8-08	8-8-08
Midterm	January	6-1-09	9-1-09
Terminal	March	23-3-09	25-3-09

It was decided that the effectiveness will be evaluated in three phrases as mentioned in the above table on the specific dimensions of literacy scales implicable for particular grade. Multi-wave data were collected to explore the sustainability of treatment during the session. For this purpose, base line assessment was conducted at the beginning of the session before starting the treatment.

Sample

Sample of the study constitutes 8 schools from Silora Panchayat Samiti of Ajmer district. Basically these schools are located in remote rural areas and infrastructural facilities are inadequate. These schools are divided into 2 groups having 4 schools each. One group is managed by the govt. teachers and other is managed by ELP team so far as development of literary skill is concerned. However, the schools managed by govt teachers are treated as control group as there was no systematic intervention as per guidelines of ELP approach. The total number of boys and girls included in the evaluation study are presented in Table 2.

Table - 2 (Sample of the Study)

Type	Gender	Class-I	Class-II	Class-III	Total
Managed By Govt. Teachers	Boys	58	21	21	100
	Girls	19	52	48	119
Total		77	73	69	219
Managed By ELP Team	Boys	57	54	47	158
	Girls	70	40	38	148
Total		127	94	85	306
Grand Total		204	167	154	525

The detail composition of schools covered under the evaluation reveals that the schools are quite similar regarding number of students and teacher-pupil ratio except two schools managed by govt. teachers. Each school is a middle school (having classes from I to VIII) except two. The students composition of these groups are given in the Table 3.

Table - 3

Schools Covered under Evaluation and their Composition								
Group	School	Classes	Enrollment Class I - V	Enrollment Class VI - VII	Total	Teacher		TP Ratio
						Male	Female	
Managed By Govt. Teacher	Deedwada	I - VIII	106	40	146	0	6	24.33
	Baba Ki Dani	I - V	34	-	34	2	0	17
	Tehri	I - VIII	106	56	162	4	0	40.5
	Tolamal	I - V	61	-	61	2	2	15.25
	Total		307	96	403	8	8	25.18
Managed By ELP Team	Badgaon	I - VIII	92	51	143	4	2	23.83
	Churli	I - VIII	125	36	161	3	1	40.25
	Chundri	I - VIII	101	47	148	3	2	29.6
	Kadampura	I - VIII	90	54	144	4	2	24
	Total		408	188	596	14	7	28.38

Procedure of Evaluation

The information was collected from primary and secondary beneficiaries to tap the intervention effects. The primary beneficiaries include students from class I to III and teachers of the respective schools. The secondary beneficiaries include parents, educational officers and evaluation team members. The student's progress on literacy skills was examined through teacher made tests (attached in Appendix I) developed on the basis of reading and writing competencies included in the ELP approach. At each phase our team members visited each school and administered the tests. For the purpose of administration all the psychological factors like students' interest, motivation and test anxiety were taken care off. Students were involved in a democratic free atmosphere to answer. Instructions were given to the students in their local dialect as well as Hindi. Detection was conducted in group. However, testing of reading and writing competencies were carried out individually. Certain activities were also conducted to get responses from students. The skills mentioned in each stage of evaluation is given in Table 4.

Regarding secondary beneficiaries, focus group interview was organized to collect feedback from teachers. In addition to it, feedback from parents, education officers and evaluation team members were collected through interview. Both qualitative and quantitative information were collected from stakeholders to evaluate the effectiveness of ELP approach in detail .

Table - 4

Class wise progression of Reading and Writing (R/W) Competencies			
Class	Baseline (August 2008)	Mid term (January 2009)	End term (March 2009)
I	<ul style="list-style-type: none"> - Recognition of alphabets (varnas) and syllables (aksharas) through oral reading (Q3) - Dictation of alphabets and syllables (Sound / symbol recognition) (Q2) 	<ul style="list-style-type: none"> - Sound / symbol correspondence (Q1) - Word recognition through R/W(Q2) - Dictation of alphabets, syllables and words (Q3) 	<ul style="list-style-type: none"> - Combining alphabets and syllables to construct meaningful words (Q1) - Word recognition through R/W (Q2) - Dictation of alphabets, syllables, words and sentences (Q3)
II	<ul style="list-style-type: none"> - Recognition of alphabets and syllables through oral reading (Q3) - Dictation of alphabets and syllables (Sound / symbol recognition) (Q2) 	<ul style="list-style-type: none"> - Recognition of initial sounds/ symbols of words (Q2) - Combining alphabets and syllables to construct meaningful words (Q1) - Dictation of alphabets, syllables and words (Q3) 	<ul style="list-style-type: none"> - Combining alphabets and syllables to construct meaningful words (Q1) - Dictation of alphabets, syllables, words and sentences (Q3) - Reading a paragraph with understanding by writing answers to questions based on it. (Q2) - Fluency of oral reading of sentences (Q4)
III	<ul style="list-style-type: none"> - Dictation of alphabets and syllables (Sound / symbol recognition) (Q2) - Recognition of alphabets (varnas) and syllables(aksharas) through oral reading (Q3) - Combining alphabets and syllables to construct meaningful words (Q4) - Recognition of initial sounds /symbols of words (Q5) 	<ul style="list-style-type: none"> - Dictation of alphabets, syllables, words and sentences (Q3) - Combining alphabets and syllables to construct meaningful words (Q1) - Reading sentences with understanding (reading and following directions) (Q2) - Fluency of oral reading of sentences(Q4) 	<ul style="list-style-type: none"> - Dictation of alphabets, syllables, words and sentences (Q3) - Combining alphabets and syllables to construct meaningful words (Q1) - Reading a paragraph with understanding by writing answers to questions based on it. (Q2) - Fluency of oral reading of sentences (Q4)

Analysis of Data

Basically ELP approach focuses on variety of skills at two level. In class I emphasis is given on initial reading and writing skills through linguistically controlled classroom environments. In class II and III reading and writing skills are strengthened by using print rich classroom. So the analysis were made class wise and compared between students managed by Govt. teachers and ELP team. Both descriptive and inferential statistics were used to analyze the data with the help of SPSS software and presented sequentially below.

Descriptions of Variables

The description of variables measured in class I, II and III are presented in table 5, 6 and 7 respectively. In each table, the test items covered in all the 3 phases of assessment are described with number of subject, minimum, maximum score as well as mean and standard deviation. The purpose is to show the actual number of students presented during each phase of assessment in both the groups. The total number of students in class I, II & III is 204,167, and 154 respectively. From the data it is observed that absence of students during the date of evaluation is increasing towards the end term evaluation. The percentage of missing is more in case of class I students than other classes. However, during the analysis the missing cases were excluded item wise for calculating the statistics.

Table No: 5

Description of variables measured in class I					
Baseline	N	Minimum	Maximum	Mean	Std. Deviation
Dictation of alphabets and syllables for recognition of their sounds and symbols	180	0	10	1.20	2.12
Recognition of alphabets and syllables through reading	180	0	10	1.44	2.67
Total	180	0	20	2.61	4.31
Midterm	N	Minimum	Maximum	Mean	Std. Deviation
Awareness of sound symbol correspondence of alphabets and syllables through reading	149	0	10	6.03	4.15
Recognition of the written form of a spoken word through reading and writing	149	0	10	5.48	4.02
Dictation of alphabets, syllables and words for recognition of their sounds and symbols	149	0	10	4.57	4.25
Total	155	0	30	15.64	11.95
End term	N	Minimum	Maximum	Mean	Std. Deviation
Combining alphabets and syllables to construct meaningful words.	145	0	10	6.14	4.31
Recognition of the written form of a spoken word through reading and writing	145	0	10	6.52	4.28
Dictation of alphabets, syllables, words and sentences	145	0	10	5.63	4.52
Total	145	0	30	18.30	12.48

Table No: 6

Description of variables measured in class II					
Baseline	N	Minimum	Maximum	Mean	Std. Deviation
Dictation of alphabets and syllables for recognition of their sounds and symbols	157	0	10	3.65	3.11
Recognition of alphabets and syllables through reading.	157	0	10	3.89	3.30
Total	157	0	20	7.54	6.03
Midterm	N	Minimum	Maximum	Mean	Std. Deviation
Combining alphabets and syllables to construct meaningful words.	134	0	10	5.46	3.78
Recognition of the initial sound of a word through reading and writing	134	0	10	6.00	4.43
Dictation of alphabets, syllables, words and sentences	134	0	10	6.10	4.12
Total	134	0	30	17.55	11.62
End term	N	Minimum	Maximum	Mean	Std. Deviation
Combining alphabets and syllables to construct meaningful words.	126	0	10	7.21	3.28
Reading a paragraph with understanding and then writing answers to questions based on it	126	0	10	7.02	3.74
Dictation of alphabets, syllables, words and sentences	126	0	10	6.50	3.72
Individual oral reading at the sentence level.	124	0	10	6.16	4.23
Total	167	0	40	20.21	16.35

Table No: 7

Description of variables measured in class III					
Baseline	N	Minimum	Maximum	Mean	Std. Deviation
Dictation of alphabets and syllables for recognition of their sounds and symbols	137	0	10	6.30	3.07
Recognition of alphabets and syllables through reading.	138	0	10	6.51	3.66
Combining alphabets and syllables to construct meaningful words.	138	0	10	1.42	2.14
Recognition of the initial sound of a word through reading and writing	138	0	5	2.16	2.34
Total	138	0	35	16.26	8.93
Midterm	N	Minimum	Maximum	Mean	Std. Deviation
Combining alphabets and syllables to construct meaningful words.	126	0	10	6.29	2.97
Reading a sentence with understanding.	121	0	10	7.12	3.69
Dictation of alphabets, syllables, words and sentences	121	0	10	6.77	3.49
Individual oral reading at the sentence level.	121	0	10	5.26	3.98
Total	121	0	40	25.54	12.25
End term	N	Minimum	Maximum	Mean	Std. Deviation
Meaningful classification of written words	117	0	10	7.62	3.60
Reading a paragraph with understanding and then writing answers to questions based on it	117	0	10	5.56	4.11
Dictation of alphabets, syllables, words and sentences	116	0	10	7.03	3.19
Individual oral reading at the sentence level.	115	0	27	6.09	4.54
Total	117	0	54	26.05	13.51

Average score of students in each School

School wise mean scores of students are presented with their standard deviation in table no. 8,9 and 10. The mean score is based on the total score of each phase of assessment. To show the trend line graphs are also presented for class I, II and III separately. The basic trend observed from the tables reveals that the mean score of each school increased progressively from baseline assessment to end term evaluation. However, the quantum of increment is comparatively more in case of school managed by ELP staffs. Another trend shows high standard deviation in case of each school invariably. It indicates the heterogeneity of students in each class so far as their achievement in reading and writing skills are concerned.

Table - 8

Mean scores during phases of evaluation (Class-I)										
Group	School	Baseline			Midterm			End term		
		N	Mean	SD	N	Mean	SD	N	Mean	SD
Managed By Govt. Teacher	Deedwada	18	3.39	5.71	27	9.96	7.33	26	8.00	9.58
	Baba Ki Dani	4	1.00	2.00	4	3.50	1.91	3	3.67	4.04
	Tehri	23	2.70	4.76	15	2.93	6.37	16	4.25	7.62
	Tolmal	16	3.81	5.53	11	5.00	6.56	9	8.56	9.48
Total		61	3.08	5.09	57	6.70	7.29	54	6.74	8.81
Managed By ELP Team	Badgaon	24	1.33	2.50	24	4.83	4.52	16	27.56	5.10
	Churuli	36	1.25	2.09	18	25.22	5.90	26	27.46	3.14
	Chunduri	32	4.53	5.38	32	20.34	11.47	26	26.19	8.65
	Kadampura	27	2.22	3.60	24	6.38	3.82	23	19.74	12.37
Total		119	2.37	3.85	98	20.55	11.16	91	25.16	8.70

Trend of Increment in Class - I

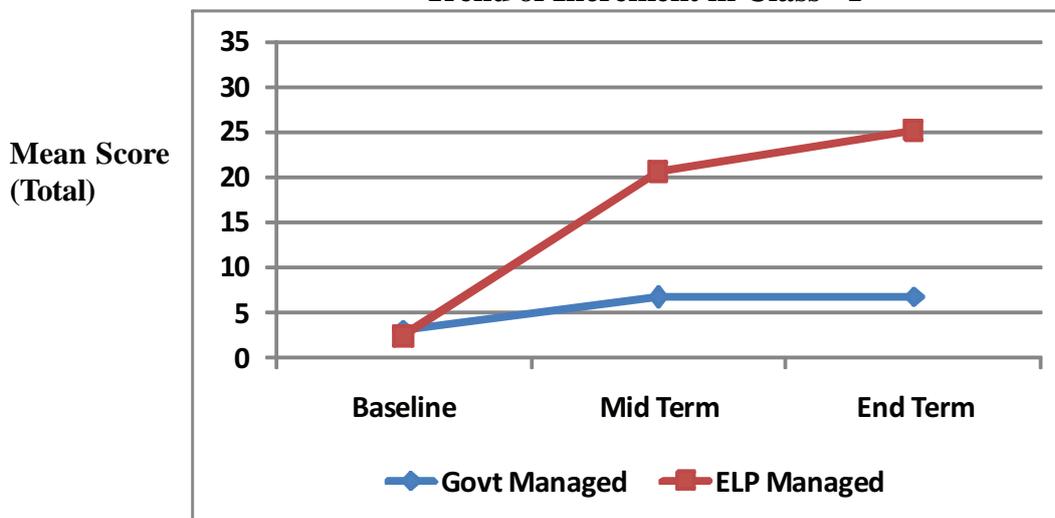


Table - 9

Mean scores during phases of evaluation (Class-II)										
Group	School	Baseline			Midterm			End term		
		N	Mean	SD	N	Mean	SD	N	Mean	SD
Managed By Govt. Teacher	Deedwada	23	9.96	4.73	27	5.04	3.83	29	12.72	9.87
	Baba Ki Dani	6	4.67	7.17	7	00	00	7	5.14	13.61
	Tehri	25	7.24	7.15	21	3.29	3.85	25	13.00	11.31
	Tolmal	11	1.73	3.58	4	6.25	5.80	12	5.92	8.39
Total		65	7.03	6.42	59	9.78	9.86	73	10.97	10.81
Managed By ELP Team	Badgaon	24	8.50	5.18	23	24.26	9.85	24	29.83	13.08
	Churuli	33	5.30	5.42	17	22.82	9.14	33	19.52	18.55
	Chunduri	15	7.93	5.18	20	8.40	3.48	17	32.41	15.22
	Kadampura	20	11.45	5.53	20	24.10	7.33	20	33.15	12.54
Total		92	7.90	5.74	75	23.67	8.98	94	27.38	16.37

Trend of Increment in Class - II

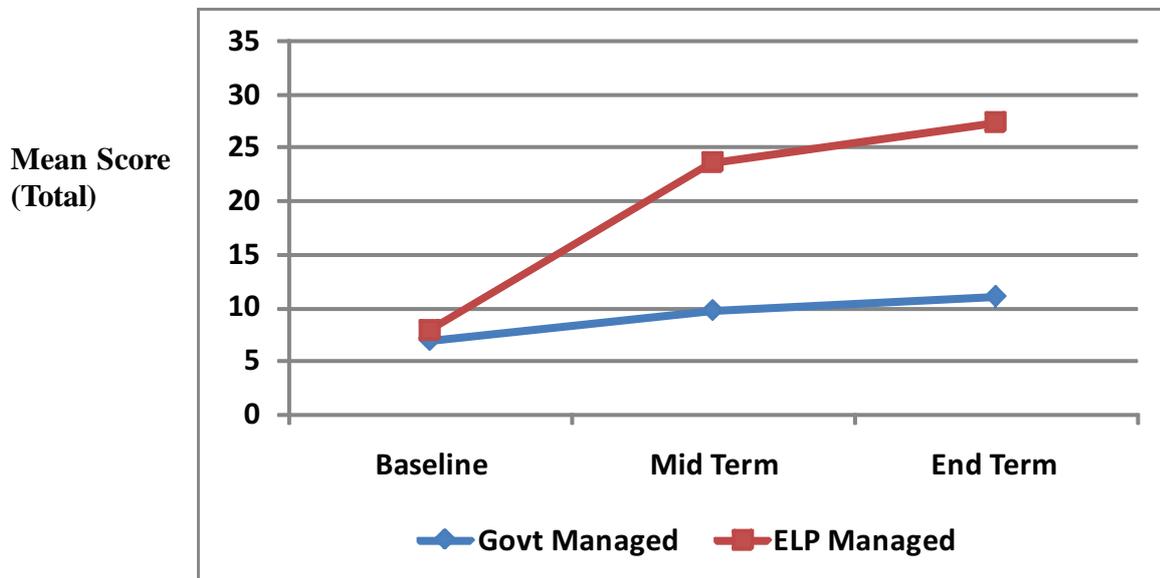
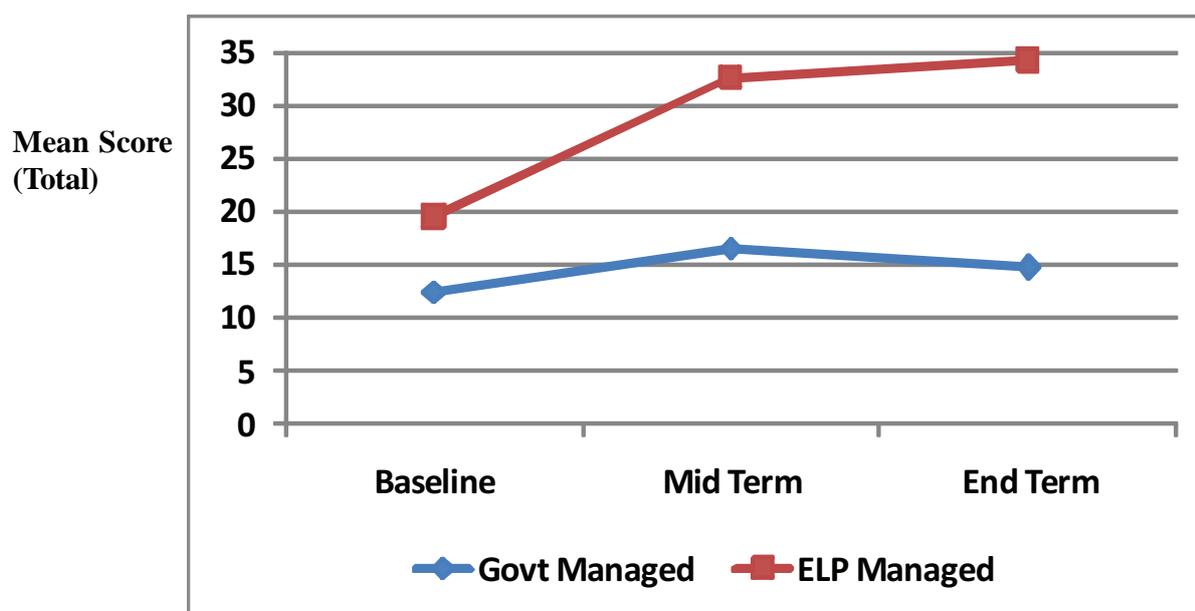


Table - 10

Mean scores during phases of evaluation (Class-III)										
Group	School	Baseline			Midterm			End term		
		N	Mean	SD	N	Mean	SD	N	Mean	SD
Managed By Govt. Teacher	Deedwada	23	14.70	5.72	25	23.24	10.19	22	18.32	9.41
	Baba Ki Dani	3	11.33	4.51	4	11.00	4.97	4	10.50	9.33
	Tehri	24	9.25	7.98	15	1.87	2.61	14	11.00	10.79
	Tolnal	14	14.71	12.28	9	12.11	11.84	9	13.44	12.31
Total		64	12.50	8.57	53	16.54	11.33	49	14.69	10.62
Managed By ELP Team	Badgaon	17	19.88	7.46	16	30.62	6.58	15	32.40	9.50
	Churuli	28	17.32	9.75	21	33.67	8.36	22	31.86	11.56
	Chunduri	16	22.38	6.71	17	30.35	7.45	17	37.00	4.62
	Kadampura	13	20.23	4.27	14	36.07	4.51	14	36.57	2.56
Total		74	19.51	7.96	68	32.62	7.27	68	34.24	8.53

Trend of Increment in Class - III



Distribution of Scores in each class

The mean scores obviously indicate the trend on the basis of average performance. But in case of intervention effect the progress of each individual is meaningful. So to find a trend on the basis of individual progress, the total score of each group at different phases of evaluation is presented in a stem and leaf plot. The stem-and-leaf plot provides more information about the actual values than does a histogram. The length of each row corresponds to the number of cases that falls into a particular interval. However, the stem-and-leaf plot represents each case with a numeric value that corresponds to the actual observed value. This is done by dividing observed values into two components - the leading digit or digits called the stem, and a trailing digit called the leaf. In few cases the stem is with one digit (class-1 of baseline, midterm and endterm managed by ELP staff). So the actual value is presented under stem and the number of representation/frequency is marked by '0'. The plot of students managed by govt. teachers and ELP team are presented simultaneously to visualize the comparative picture of the distribution. The details are also mentioned in respective plot.

Stem-and-Leaf Plot of Total score of Class-I

Base Line Assessment

<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
24.00	0 . 000000000000000000111111	28.00	0.00000000000000000000000000000000
3.00	0 . 223	12.00	1 . 000000000000
4.00	0 . 4455	9.00	2 . 00000000
2.00	0 . 66	2.00	3 . 00
2.00	0 . 89	2.00	4 . 00
2.00	1 . 01	4.00	5 . 0000
1.00	1 . 2	1.00	6 . 0
2.00	Extremes (>=16)	1.00	7 . 0
		2.00	9 . 00
Stem width:	10	4.00	10 . 0000
Each leaf:	1 case(s)	3.00	11 . 000
		3.00	Extremes (>=12.0)
		Stem width:	1
		Each leaf:	1 case(s)

are clustered at the lower end. The top of the plot indicates the lower end and bottom is higher end. The pattern of distribution is same for the both the groups. But after intervention the distribution for students managed by ELP team changed progressively in comparison to distribution of scores of students managed by Govt. Teachers. The trend of distribution shifted towards the higher end.

Stem-and-Leaf Plot of Total score of Class-II Base Line Assessment

<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
14.00	0 . 00000000122234	9.00	0 . 000022344
11.00	0 . 66777788999	17.00	0 . 55566666777778889
16.00	1 . 0000011223333344	27.00	1 . 000000000111112222233444444
7.00	1 . 5567999	11.00	1 . 55556667889
1.00	2 . 0	1.00	2 . 0
Stem width: 10		Stem width: 10	
Each leaf: 1 case(s)		Each leaf: 1 case(s)	

Stem-and-Leaf Plot of Total score of Class-II Mid Term Assessment

<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
19.00	0 . 0000000000011111444	8.00	Extremes (= < 14)
10.00	0 . 5566778899	1.00	2 . 0
6.00	1 . 012244	2.00	2 . 23
5.00	1 . 66689	8.00	2 . 44555555
4.00	2 . 0344	12.00	2 . 666666777777
5.00	2 . 55679	21.00	2 . 8888888899999999999999
		13.00	3 . 00000000000000
Stem width: 10		Stem width: 10	
Each leaf: 1 case(s)		Each leaf: 1 case(s)	

Stem-and-Leaf Plot of Total score of Class-II End Term Assessment

<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
7.00	0 . 0002333	7.00	Extremes (= < 27)
8.00	0 . 55667788	1.00	2 . 8
11.00	1 . 00111234444	7.00	3 . 0001244
8.00	1 . 56678899	25.00	3 . 55677788888888888899999999
6.00	2 . 112233	25.00	4 . 000000000000000000000000
3.00	2 . 789		
4.00	3 . 1333		
2.00	3 . 56		
		Stem width:	10
		Each leaf:	1 case(s)
Stem width:	10		
Each leaf:	1 case(s)		

The plots of class II students show that at baseline assessment the distribution of the scores for both the groups are not much different. The differences become prominent in case of midterm and endterm assessment in terms of frequency and range of scores. It is clearly visible in favour of students intervened by ELP team.

Stem-and-Leaf Plot of Total score of Class-III Base Line Assessment

<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
1.00	0 . 2	1.00	0 . 4
9.00	0 . 566678999	2.00	0 . 89
13.00	1 . 0001123333344	6.00	1 . 033333
12.00	1 . 5667788899999	12.00	1 . 556677778899
4.00	2 . 0124	14.00	2 . 00011222333444
2.00	2 . 56	19.00	2 . 5555666677788888999
1.00	3 . 1	5.00	3 . 00111
2.00	Extremes (>=33)		
Stem width:	10	Stem width:	10
Each leaf:	1 case(s)	Each leaf:	1 case(s)

Stem-and-Leaf Plot of Total score of Class-III
Mid Term Assessment

<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
6.00	0 . 011234	1.00	Extremes (= < 7)
8.00	0 . 55677799	2.00	1 . 68
7.00	1 . 0012224	7.00	2 . 0111334
6.00	1 . 678899	6.00	2 . 556669
7.00	2 . 0333344	9.00	3 . 001233334
4.00	2 . 5577	29.00	3 . 55566666667777778888999999999
.00	3 .	5.00	4 . 00000
6.00	3 . 556679		
Stem width: 10		Stem width: 10	
Each leaf: 1 case(s)		Each leaf: 1 case(s)	

Stem-and-Leaf Plot of Total score of Class-III
End Term Assessment

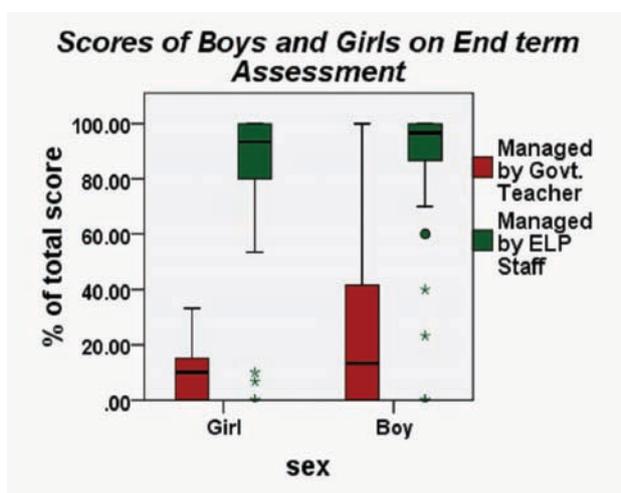
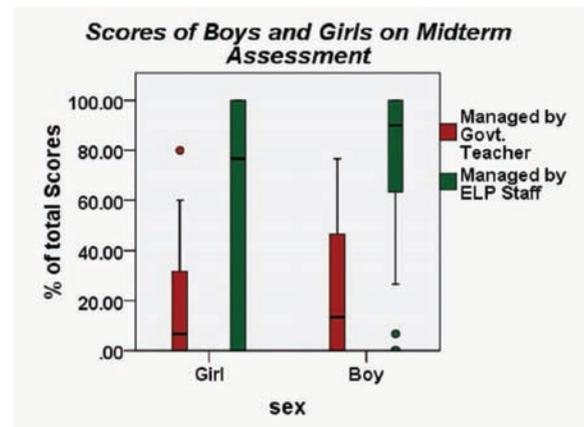
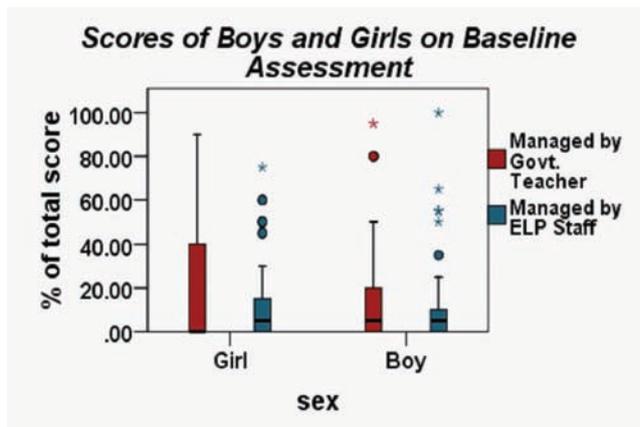
<u>Govt. Teachers</u>		<u>ELP Staff</u>	
Frequency	Stem & Leaf	Frequency	Stem & Leaf
7.00	0 . 0001124	7.00	Extremes (= < 25)
9.00	0 . 666667789	2.00	2 . 79
6.00	1 . 001223	10.00	3 . 1223334444
6.00	1 . 555688	26.00	3 . 55566666667788888888999999999
5.00	2 . 01133	14.00	4 . 000000000000000
4.00	2 . 5789		
6.00	3 . 012334	Stem width: 10	
1.00	3 . 5	Each leaf: 1 case(s)	
Stem width: 10			
Each leaf: 1 case(s)			

In class III, the distribution of scores in case of baseline assessment indicates the better achievement of students managed by ELP team in comparison to scores of students managed by Govt. teachers. This difference may be by chance. But the trend of distribution derived from the scores obtained during midterm and endterm assessment clearly reflect the positive effect of intervention in all the schools managed by ELP team. The frequency and range of scores clearly indicates the improvement made by students in literacy skills.

The examination of all the stem and leaf plots in class-I, II and III at different phases of assessment very clearly show the improvement of scores on literacy skills by students managed by ELP team. The progressive trend is also directed towards the end term evaluation which was carried out after the treatment through ELP approach on literacy development. This trend of scores signifies the positive influence of literacy approach adopted by ELP team at two levels of skills development in class I to III.

Scores of Boys and Girls on Literacy Skills

Up to this level we have discussed about the analysis of whole class in terms of early literacy skills. It is an obvious fact that classroom is a heterogeneous group with mix ability. In this context, the difference may arise in literacy skills development. So it was decided to analyze the achievement of boys and girls and different cast groups separately. To analyze the achievement of these groups percentage of total scores were used and presented through box plots. *This plot displays summary statistics for the distribution. It plots the median, the 25th and 75th percentile, the values that are far removed from the rest. The lower boundary of the box is the 25th percentile and the upper boundary is the 75th percentile. The line inside the box represents the median. Fifty percent of the cases have values within the box. The length of the box corresponds to the interquartile range, which is the difference between 75th and 25th percentile. The asterisk marks in the box are called extreme values that are more than 3 box-*

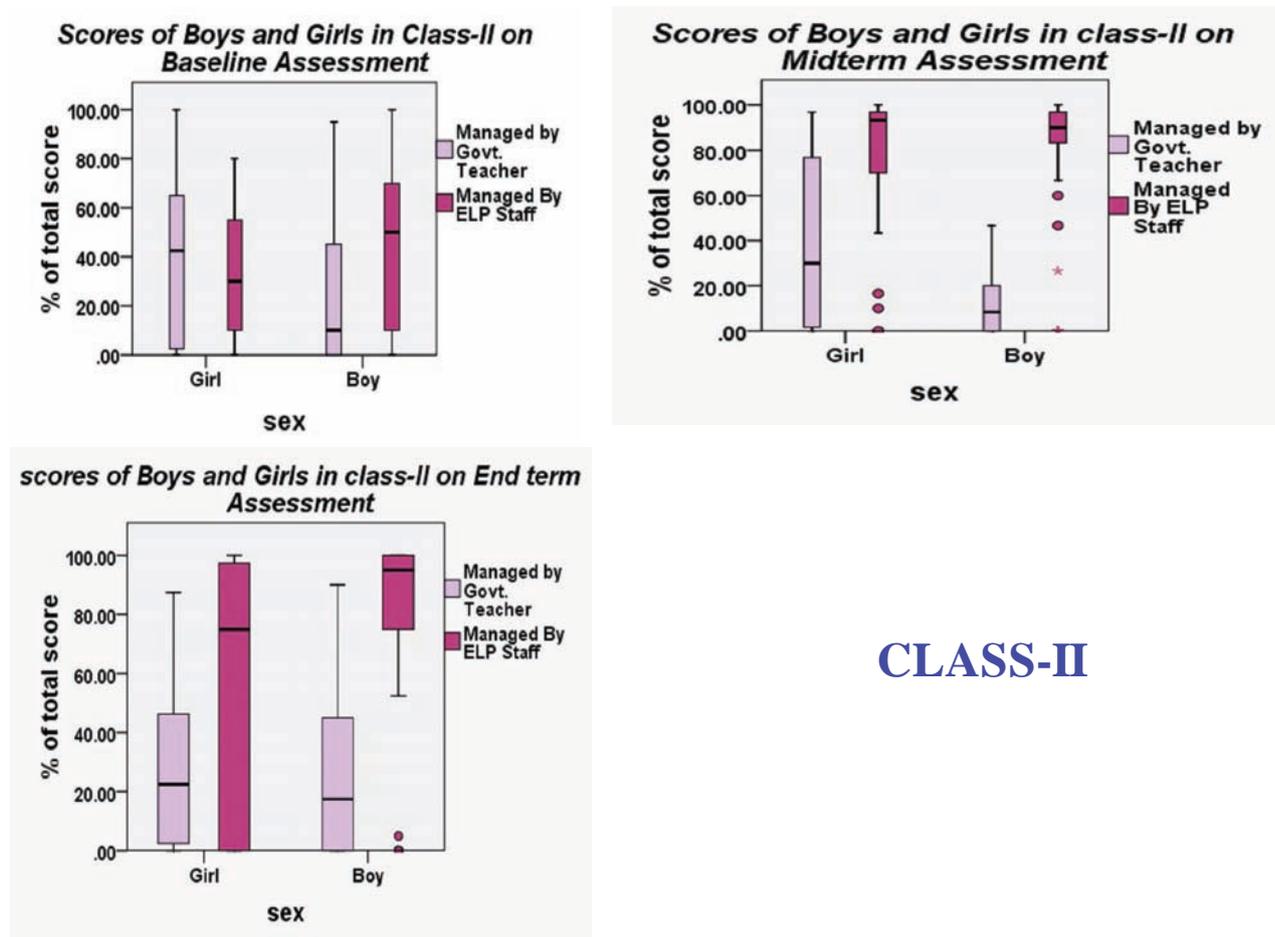


CLASS-I

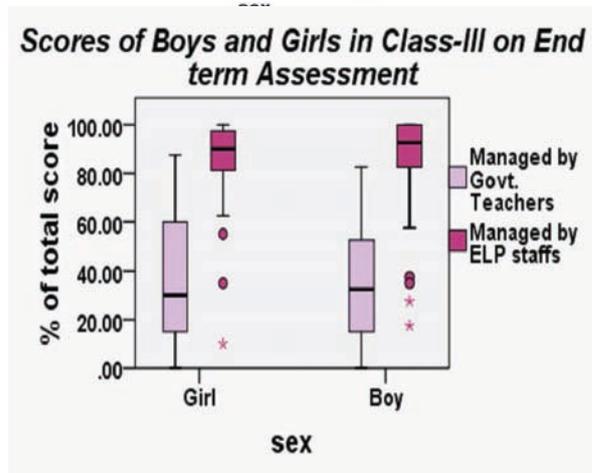
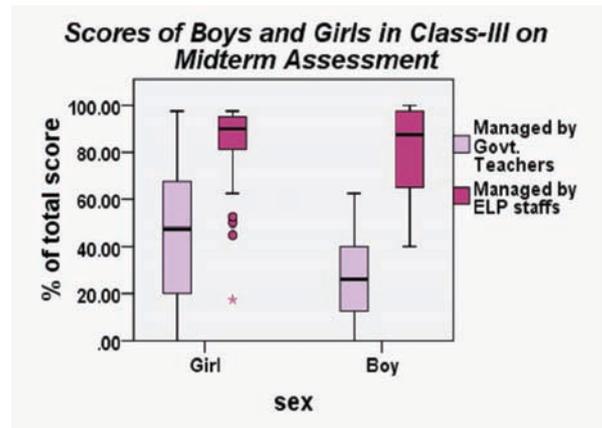
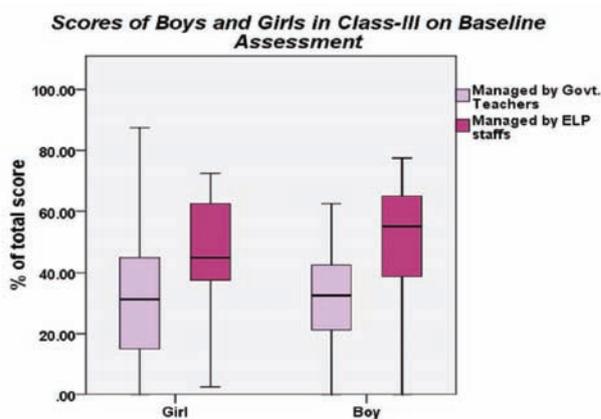
length from the upper or lower edge of the box. The circle marks are called outliers that are 1.5 and 3 box length from the upper or lower edge of the box. The lines drawn from the ends of the box to the largest and smallest observed values are called whiskers. For each phase of assessment the box plots of class - I presented below. Each box plot presents the distribution of percentage separately for boys and girls. Within each gender group two box plots are marked by Govt. teacher and ELP team.

From the plots it is observed that the range of distribution increases progressively towards the end term evaluation. In base line assessment the range of distribution is very limited even the maximum is up to 50 percent except girls of schools managed by Govt. teachers. There are also few extreme cases at the upper side in both types of intervention management. In mid term and end term assessment the distribution of scores and median of boys and girls managed by ELP staffs are increased significantly in comparison to the scores of boys and girls managed by Govt. teachers. Even the median of boys and girls crossed 95% in the schools managed by ELP staffs. However, there are very few extreme cases at the lower end which require in-depth case study for detail analysis.

In class II the trend of increment is similar to class I. However, in baseline assessment median score of girls in schools managed by govt. teachers is better than their peers in schools managed by ELP team.



CLASS-II



CLASS-III

The same is reverse in case of boys. However, in midterm and endterm assessment the median scores of boys and girls of schools managed by ELP team increased above 80% in comparison to boys and girls of schools managed by Govt. teachers. In endterm assessment the range of distribution of literacy scores obtained by girls (schools managed by ELP team) became very wide in comparison to the scores of boys which shows the variability in the achievement.

In class-III the trend of increment is similar and in favour of boys and girls of schools managed by ELP team. However, in baseline assessment the boys and girls of ELP managed schools score better than other group. After the intervention the initial high score become more and more higher i.e. median 50% in the baseline to above 80% in both midterm and end term assessment. In case of school managed by Govt. teachers the median remained approximately same at different phase of assessment.

From all the plots, the emerging general trend indicates emphatically that boys and girls were benefitted through ELP approach in terms of learning literacy skills.

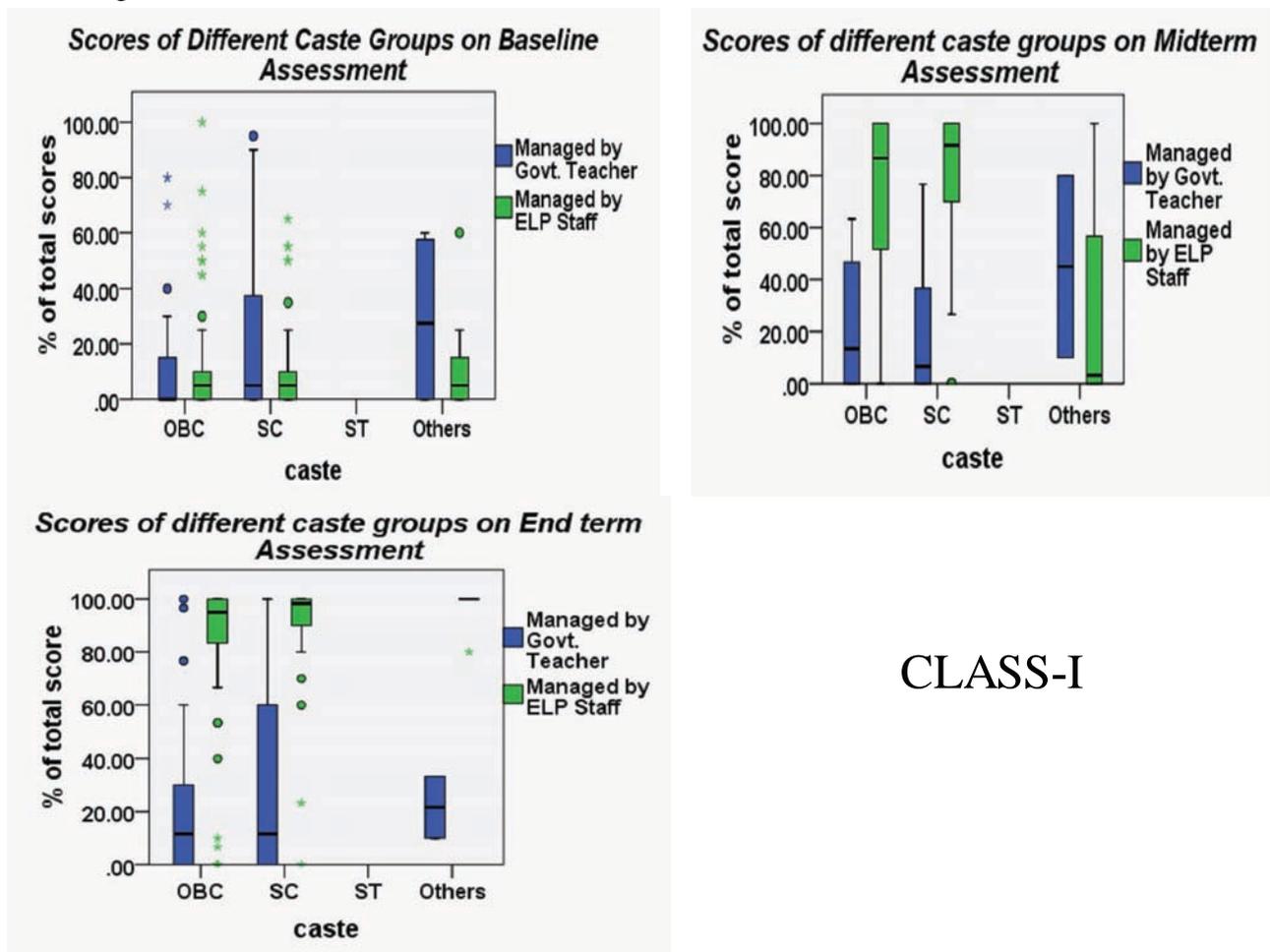
Scores of Different Caste Groups on Literacy Skills

Further attempt was made to explore the scores obtained by different caste groups on different literacy skills in class I, II and III separately. From the sample it was noted that most of the students belongs to OBC and SC categories. There was no ST students and very few belongs to general category. The same

box plot is prepared to analyze the trend of increment through distribution of scores. In class-I the range of distribution and median of OBC, SC and general categories are not much different in both type of schools except extreme cases at the higher end. In midterm and endterm assessment the range of distribution and median increased towards higher end in case of schools managed by ELP team. Specifically in end term assessment the disappearance of plot (for general students) in schools managed by ELP team is due to absenteeism. Still then there are few extreme cases towards the lower end for OBC and SC students in ELP managed school.

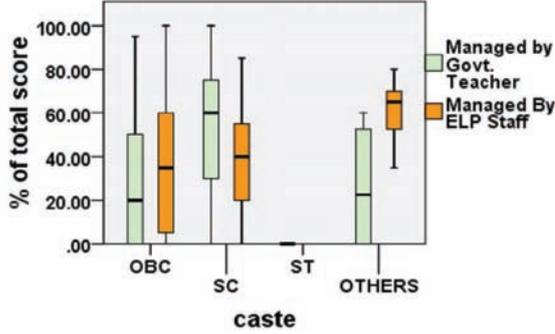
In class-II, SC students of schools managed by Govt. teachers (Median 60%) and general students of schools managed by ELP team (Median 60%) scored higher than other caste groups in both type of schools. In case of mid term assessment OBC, SC and general students of schools managed by ELP team score significantly higher (median= above 80%) than their respective peers of other group. The same trend is also continued towards the end term assessment. Invariably all caste groups of schools managed by Govt. teachers did not change except SC students whose scores are decreased towards the end term assessment.

In class-III, as usual, the scores of different caste group in schools managed by ELP team was higher than other group before the treatment. But towards midterm and endterm assessment they score much higher than their initial score with extreme scores towards the lower end in end term assessment.

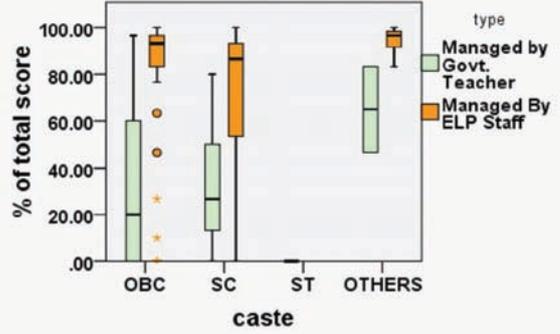


CLASS-I

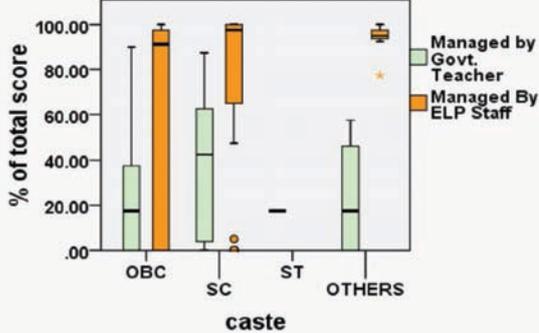
Scores of different caste groups in class-II on Baseline Assessment



Scores of different caste groups in Class-II on Midterm Assessment

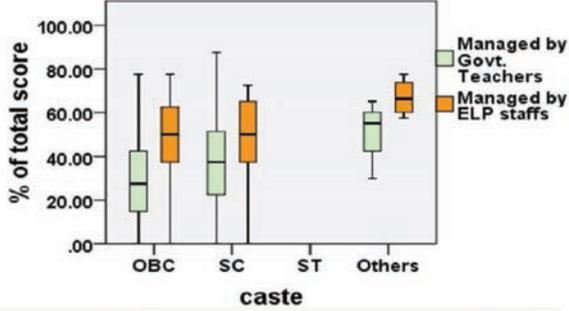


Scores of different caste groups in class-II on End term Assessment

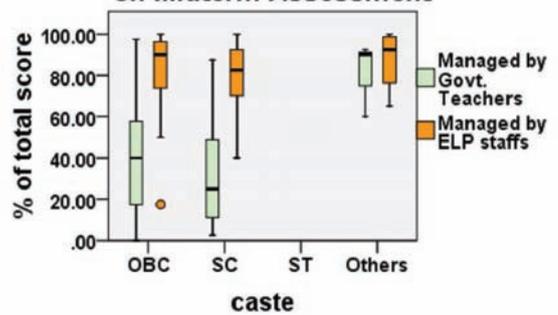


CLASS-II

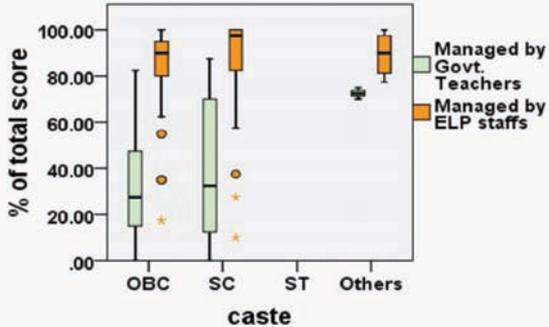
Scores of different caste groups in class-III on Baseline Assessment



Scores of different caste groups in class-III on Midterm Assessment



Scores of different caste groups in class-III on End term Assessment



CLASS-III

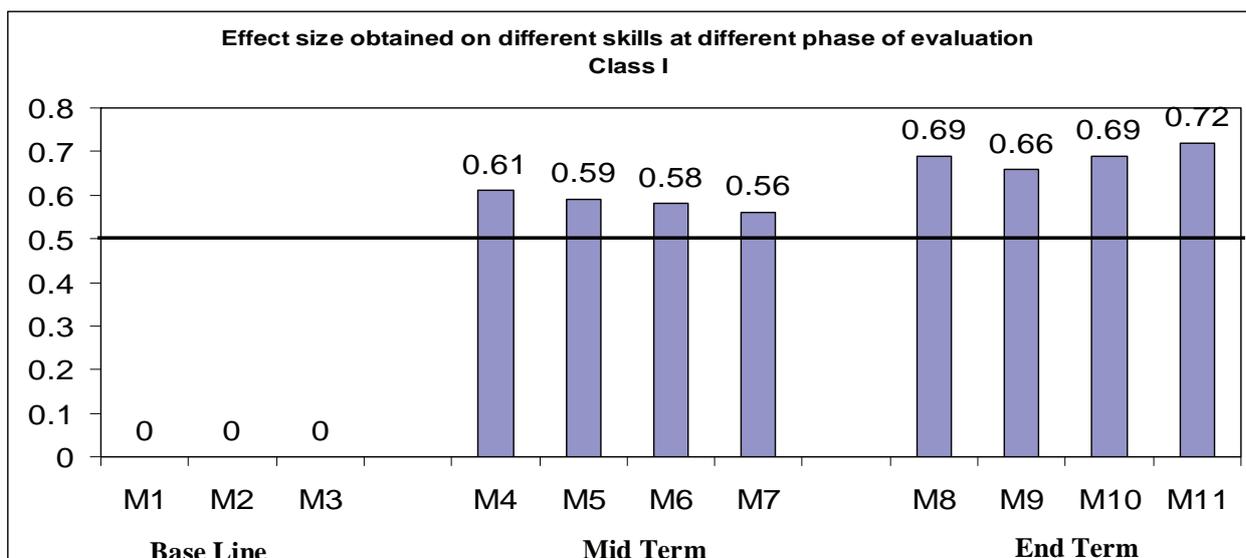
The trend of increment in different phases of assessment proved that different caste groups were also benefitted from ELP approach on literacy skills development.

Comparison of Intervention Effects

The major objective of the external evaluation is to assess the significant effect of literacy model implemented by ELP team in rural primary school. So to estimate the significant difference the scores obtained by students of both the groups on each skills as well as total score at different phases of evaluation were compared. The tables are prepared class wise and presented below. The scores of class I students is compared in Table no 11.

Table No:- 11

Comparison of groups on different literacy skills(Class-I)								
Baseline	Group	N	Mean	SD	t	df	sig.	E.size
Dictation of alphabets	Govt. T.	61	1.54	2.49	1.42	178	NS	---
	ELP. T.	119	1.03	1.88				
Recognition of alphabets	Govt. T.	61	1.54	2.98	0.37	178	NS	---
	ELP. T.	119	1.39	2.51				
Total	Govt. T.	61	3.08	5.09	0.96	178	NS	---
	ELP. T.	119	2.37	3.85				
Midterm	Group	N	Mean	SD	t	df	sig.	E.size
Awareness of sound symbol	Govt. T.	57	2.82	3.09	9.36	147	.000	0.61
	ELP. T.	92	8.02	3.41				
Recognition of the written form	Govt. T.	57	2.46	2.65	8.93	147	.000	0.59
	ELP. T.	92	7.35	3.57				
Dictation of alphabets, syllables	Govt. T.	57	1.42	2.41	8.74	147	.000	0.58
	ELP. T.	92	6.52	3.97				
Total	Govt. T.	57	6.70	7.29	8.38	153	.000	0.56
	ELP. T.	98	20.55	11.16				
End term	Group	N	Mean	SD	t	df	sig.	E.size
Construct meaningful words.	Govt. T.	54	2.30	3.43	11.41	143	.000	0.69
	ELP. T.	91	8.43	2.94				
Recognition of the written form	Govt. T.	54	2.85	3.80	10.58	143	.000	0.66
	ELP. T.	91	8.70	2.82				
Dictation of alphabets, syllables	Govt. T.	54	1.59	3.06	11.45	143	.000	0.69
	ELP. T.	91	8.03	3.40				
Total	Govt. T.	54	6.74	8.81	12.27	143	.000	0.72
	ELP. T.	91	25.16	8.70				



M1: Dictation of alphabets.

M2: Recognition of alphabets.

M3: Total.

M4: Awareness of sound symbol.

M5: Recognition of the written words

M6: Dictation of alphabets, syllables and words.

M7: Total.

M8: Construct meaningful words.

M9: Recognition of the written words

M10: Dictation of alphabets, syllables, words and sentence

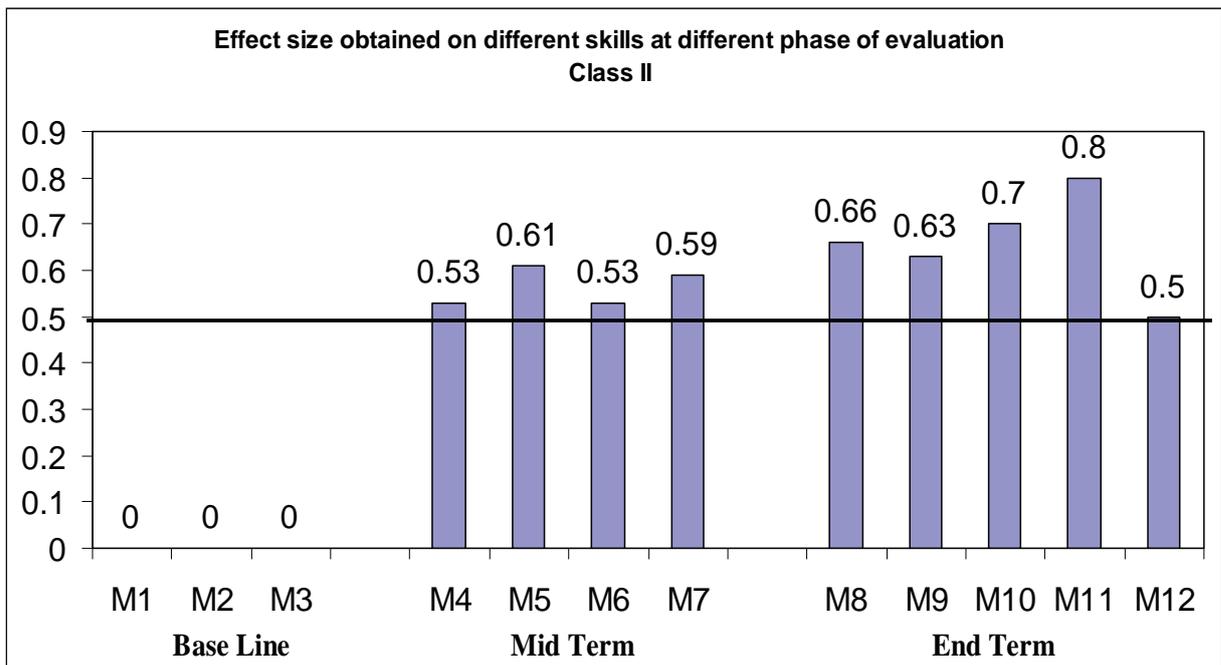
M11: Total

In the class-I two skills are measured during the baseline assessment and three skills each in mid term and end term assessment. The table presents a new concept i.e. effect size in addition to other necessary components of t-measures. The effect size from t-value is calculated on the basis of formula prescribed by Andy (2004) and presented in a graph.

The result shows that during baseline assessment both the groups did not differ significantly on literacy skills. However, after the treatment i.e. implementation of ELP intervention the students of school managed by ELP team scored better than students of school where interventions were provided by Govt. School teachers. In case of each skill the t-value is highly significant at two different phase of evaluation other than baseline assessment. On the basis of effect size, it is authenticated that the treatment has above average effect as the value exceed the threshold value (.50). The magnitude of excess from threshold value (the horizontal grid line in the graph) is clearly visible in the graph. Further, the effect has increased significantly towards the end term assessment. It is clearly inferred that long-term intervention on literacy skills in class-I has significant progressive effect. It is highly necessary at formative stage of development.

Table - 12

Comparison of groups on different literacy skills(Class-II)								
Baseline	Group	N	Mean	SD	t	df	sig.	E.size
Dictation of alphabets	Govt. T.	65	3.60	3.41	0.17	155	NS	---
	ELP. T.	92	3.68	2.90				
Recognition of alphabets	Govt. T.	65	3.43	3.34	1.47	155	NS	---
	ELP. T.	92	4.22	3.25				
Total	Govt. T.	65	7.03	6.42	0.89	155	NS	---
	ELP. T.	92	7.90	5.74				
Midterm	Group	N	Mean	SD	t	df	sig.	E.size
Awareness of sound symbol	Govt. T.	59	3.19	3.26	7.27	132	.000	.53
	ELP. T.	75	7.24	3.16				
Recognition of the written form	Govt. T.	59	2.97	3.79	8.82	132	.000	.61
	ELP. T.	75	8.39	3.31				
Dictation of alphabets, syllables	Govt. T.	59	3.63	3.81	7.24	132	.000	.53
	ELP. T.	75	8.04	3.24				
Total	Govt. T.	59	9.78	9.86	8.51	132	.000	.59
	ELP. T.	75	23.67	8.98				
End term	Group	N	Mean	SD	t	df	sig.	E.size
Construct meaningful words.	Govt. T.	54	4.72	3.06	9.72	124	.000	.66
	ELP. T.	72	9.07	1.95				
Recognition of the written form	Govt. T.	54	4.30	3.69	9.07	124	.000	.63
	ELP. T.	72	9.06	2.16				
Dictation of alphabets, syllables	Govt. T.	54	3.52	3.42	10.80	124	.000	.70
	ELP. T.	72	8.74	1.96				
Individual Reading	Govt. T.	54	2.30	2.96	15.03	122	.000	.80
	ELP. T.	70	9.14	2.11				
Total	Govt. T.	65	10.97	10.81	7.40	165	.000	.50
	ELP. T.	92	27.38	16.37				



M1: Dictation of alphabets.

M2: Recognition of alphabets.

M3: Total.

M4: Construct meaningful words

M5: Recognition of the initial sound/symbol of written words

M6: Dictation of alphabets, syllables and words.

M7: Total.

M8: Construct meaningful words.

M9: Reading a paragraph with understanding and answer to written question

M10: Dictation of alphabets, syllables, words and sentence

M11: Individual Reading

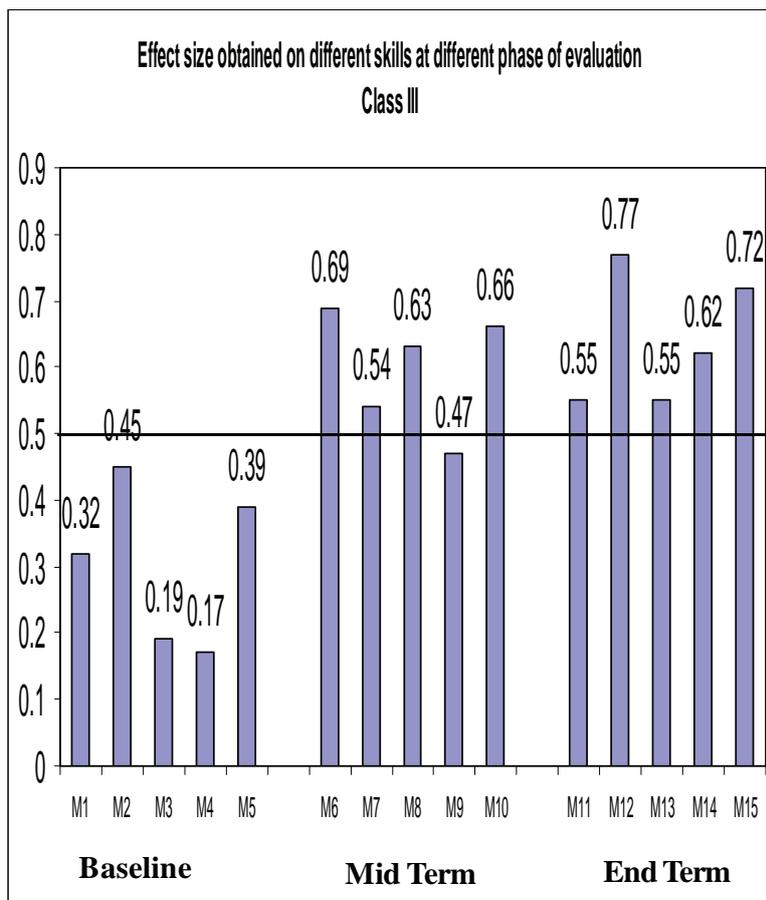
M12: Total

In class II, two, three and four skills are measured during baseline, midterm and end term evaluation respectively. The comparisons of mean scores are presented in Table 12.

The value of mean scores during baseline assessment shows the same trend as Class I and it is valuable for inferring significant effect of intervention. Further t-scores calculated for each skill in mid term and end term phase show highly significant difference and the mean scores of students in schools managed by ELP team are significantly higher than the other students. The effect size in each case exceeds the average effect (.50). This shows the above average effect of intervention given by ELP team. Specifically the effect size is increased to wards the end of intervention and individual reading obtained a higher effect size (.80). It shows that reading skills of students is improved to a great extent due to the intervention.

Table No:- 13

Comparison of groups on different literacy skills(Class-III)								
Baseline	Group	N	Mean	SD	t	df	sig.	E.size
Dictation of alphabets	Govt. T.	64	5.25	3.03	3.94	135	.000	.32
	ELP. T.	73	7.22	2.82				
Recognition of alphabets	Govt. T.	64	4.73	3.50	5.91	136	.000	.45
	ELP. T.	74	8.04	3.07				
Combining alphabets and syllables	Govt. T.	64	0.98	2.09	2.25	136	.05	.19
	ELP. T.	74	1.80	2.13				
Recognition of the initial sound	Govt. T.	64	1.73	2.26	2.01	136	.05	.17
	ELP. T.	74	2.53	2.37				
Total	Govt. T.	64	12.50	8.57	4.98	136	.000	.39
	ELP. T.	74	19.51	7.96				
Midterm	Group	N	Mean	SD	t	df	sig.	E.size
construct meaningful words.	Govt. T.	58	4.09	2.47	10.53	124	.000	.69
	ELP. T.	68	8.16	1.87				
Reading a sentence with understanding.	Govt. T.	53	4.91	3.78	7.02	119	.000	.54
	ELP. T.	68	8.85	2.36				
Dictation of alphabets, syllables	Govt. T.	53	4.30	3.18	8.79	119	.000	.63
	ELP. T.	68	8.69	2.31				
Individual oral reading at the sentence level.	Govt. T.	53	3.13	4.11	5.87	119	.000	.47
	ELP. T.	68	6.91	2.98				
Total	Govt. T.	53	16.45	11.33	9.52	119	.000	.66
	ELP. T.	68	32.62	7.27				
End term	Group	N	Mean	SD	t	df	sig.	E.size
Meaningful classification of written words	Govt. T.	49	5.29	4.01	7.12	115	.000	.55
	ELP. T.	68	9.31	2.02				
Reading a paragraph with understanding	Govt. T.	49	1.82	2.34	13.16	115	.000	.77
	ELP. T.	68	8.25	2.78				
Dictation of alphabets, syllables	Govt. T.	48	4.96	3.22	7.01	114	.000	.55
	ELP. T.	68	8.50	2.23				
Individual Reading	Govt. T.	48	2.79	3.41	8.34	113	.000	.62
	ELP. T.	67	8.45	3.70				
Total	Govt. T.	49	14.69	10.62	11.02	115	.000	.72
	ELP. T.	68	34.24	8.53				



- M1:** Dictation of alphabets.
- M2:** Recognition of alphabets.
- M3:** Combining alphabets and syllables to construct meaningful words .
- M4:** Recognition of the initial sound
- M5:**Total

- M6:**construct meaningful words.
- M7:** Reading a sentence with understanding.
- M8:**Dictation of alphabets, syllables, words and sentences
- M9:** Individual oral reading at the sentence level.
- M10:** Total

- M11:**Meaningful classification of written words
- M12:**Reading a paragraph with understanding and answering written question
- M13:**Dictation of alphabets, syllables, words and sentences
- M14:**Individual Reading
- M15:**Total

In class III, four literacy skills are measured in each phase of assessment. The result of mean scores comparison is presented in table 13. The effect size is also presented in the above graph with their threshold value.

The result reveals that there is significant difference between students managed by govt. teachers and ELP team on each skill and in case of each phase of assessment. From the mean scores it is said that students intervened by ELP approach perform far better than students of other group. Because of significant t-value effect size is calculated for each skill. But the interpretation of effect size for baseline assessment is difficult as there was no treatment. It is needless to mention that the effect size is significantly less than the threshold value (.50) in baseline assessment. However, the effect size is significantly higher than the threshold value (.50) in case of each skill (except one) in mid term and end term assessment. There is a significant effect of ELP approach so far as development of literacy skills are concerned. The progressive effect is authenticated by the appearance of high effect size (.77) in case of reading a paragraph with understanding. The effect size of total score also marks an incremental trend towards the end of intervention period.

The quantitative analysis of treatment and no-treatment groups very clearly prove the effectiveness of ELP approach in the context of literacy skills development at early stage. To find out the generalisability

of the findings and suggesting its wider application in real classroom situation attempt was made to explore the processes involved in the transaction process during the treatment. It is found that it involves sequential and active learning based processes for the development of literacy skills at early stage of schooling. The integration of multi senses during the process of transaction is also a very significant principle of teaching at this developmental stage. The approach also helps the students to first visualize, and then verbalize and eventually it vitalizes the literacy skills of students. The features highlighted are meant for quality learning and also reflected in earlier researches. The efforts of ELP staffs yield significant improvement in the literacy skills of students at the early stage of schooling. The results are also significant across the class. It shows that the particular approach is significantly appropriate for stage wise literacy skills development. From the effect size results, it is proved that the progressive changes in positive direction continued till the end of intervention. The progress is from concrete to pre-abstraction, so far as the development of cognitive process is concerned. For example, the effect size is increasing from detection and recognition skills to combining sounds and constructing meaningful words, individual reading and eventually to reading with understanding.

Sustainability of Experimental Effect

It is obvious that to prove the effectiveness of certain treatment experimental design is necessary. Majority of experimental researches collect pre-test and post-test data to prove the effectiveness of treatment. The growth measured at post-test is considered as the effect due to treatment condition. But from the recent growth researches it was proved that the end product at post-test only is not the indicators of growth, rather what happens during the treatment is the real indicators of growth and also about the sustainability of the growth. For this purpose Repeated Measure Design is appropriate to estimate progressive changes occur due to treatment condition. In this evaluation study three repeated measures were taken on same student in the name of baseline, midterm and endterm assessment. To estimate the significance of treatment though ELP approach as well as its sustainability till the end of treatment Repeated Measure Analysis of Variance was used. Technically, the carry over effect and learning effects were controlled statistically as well as through design. The result of Repeated Measure of Analysis of Variance is given in Table no 14.

Repeated Measure Analysis of variance compare the within group variance of different repeated measure i.e. baseline, midterm and endterm and calculate F-value with their significant level. From table 14 it is observed that in case of ELP staff managed schools F-value is highly significant in each class. But in case of Govt. teacher managed schools only the F-value is significant in class-II at 0.05 level. This shows that changes in achievement on literacy skills continued and sustained till the endterm assessment. It means the students of class-II in Govt. teachers managed school also improve their literacy skills to some extent towards the end term assessment. However, the magnitude of variance is very less in comparison to students of schools managed by ELP staff. In case of ELP staff managed school the magnitude of variance

Table - 14

**Experiment effect in different class
(Repeated Measure ANOVA)**

Class I				
Govt. Managed			ELP Managed	
Experiment Effect	F- Value	Sig.Level	F- Value	Sig.Level
	1.96	NS	232.93	0.001
Class II				
Experiment Effect	4.03	0.05	59.82	0.001
Class III				
Experiment Effect	0.74	N.S.	92.31	0.001

is very high in all classes (class I, II, III). It is interpreted that the literacy score obtained by students at baseline, mid term and end term phase improved substantially as treatment progressed from baseline to end term. Such progressive changes also appeared as supplementing evidences for sustainability of experimental effects till the end of treatment.

Overall, the intervention yields a positive significant result, which should be continued in regular classroom practice. It is an effective tool in the hand of policy makers to prepare the students for 21st century classroom skills.

Summary of Quantitative Analysis

1. The basic trend observed from average scores reveals that the mean score of each school increased progressively from baseline assessment to end term evaluation. However, the quantum of increment is comparatively more in case of school managed by ELP staffs.
2. The examination of all the stem and leaf plots in class-I, II and III at different phases of assessment very clearly show the improvement of scores on literacy skills by students managed by ELP team. The progressive trend is also directed towards the end term evaluation which was carried out after the treatment through ELP approach on literacy development. This trend of scores signifies the positive influence of literacy approach adopted by ELP team at two levels of skills development in class I to III.

3. From the box plots, the emerging general trend indicates emphatically that boys and girls were benefitted through ELP approach in terms of learning literacy skills.
4. The trend of increment in different phases of assessment proved that different caste groups were also benefitted from ELP approach on literacy skills development.
5. The result of inferential statistics regarding comparison of mean scores in class I shows that during baseline assessment both the groups did not differ significantly on literacy skills. However, after the treatment i.e. implementation of ELP intervention the students of school managed by ELP team scored better than students of school where interventions were provided by Govt. School teachers. In case of each skill the t-value is highly significant at two different phase of evaluation other than baseline assessment. On the basis of effect size, it is authenticated that the treatment has above average effect as the value exceed the threshold value (.50).
6. In class II, t-scores calculated for each skill in mid term and end term phase show highly significant difference and the mean scores of students in schools managed by ELP team are significantly higher than the other students. The effect size in each case exceeds the average effect (.50). This shows the above average effect of intervention given by ELP team.
7. In class III the results reveal that there is significant difference between students managed by govt. teachers and ELP team on each skill and in case of each phase of assessment. From the mean scores it is said that students intervened by ELP approach perform far better than students of other group, because of significant t-value and effect size calculated for each skill. However, the effect size is significantly higher than the threshold value (.50) in case of each skill (except one) in mid term and end term assessment.
8. From the result of Repeated Measure Analysis of variance, it is observed that in case of ELP staff managed schools F-value is highly significant in each class. In case of ELP staff managed school the magnitude of variance is very high in all classes (class I, II, III). It is interpreted that the literacy score obtained by students at baseline, mid term and end term phase improved substantially as treatment progressed from baseline to end term.

Qualitative Analysis

Why qualitative analysis was chosen?

In the quantitative analysis major focus was given to find out the quantitative difference of literacy skills between students of govt. teachers and ELP managed schools. While calculating the data for statistical analysis, the total scores on reading and writing competencies were taken in to consideration. Obviously, the total score shows the trend but never highlight the underlying processes which occur to establish the trend. The results obtained from quantitative analysis clearly reveal the significant impact of ELP approach on early literacy status/development. But it does not highlight the kind and nature of competencies developed due to intervention. At the early stage of reading and writing what task they do, how they do it, what types of mistakes they committed and the possible reasons behind such mistakes are very helpful for the implementors. So, there is a need to know all those details to gauge the real effectiveness of ELP approach. Secondly, in reality, triangulation of qualitative and quantitative analysis authenticates the results for wider generalization. Hence, in this evaluation study a detailed qualitative analysis was made to critically examine the positive impact of ELP approach on the development of literacy skills of beginning learners.

Procedure of Qualitative Analysis :

In ELP project the intervention was focused on early literacy skills, which obviously, includes early reading and writing skills. So, the data available on early reading and writing skills and its dimensions were scored in a qualitative manner. They are categorized broadly into reading and writing in which reading includes recognition of alphabets and syllables, association of sounds symbols, combining syllables and alphabets to construct words and reading comprehension. The writing part includes formation of letter, syllables, meaningful construction of words and sentences. Wherever, quantity in terms of number derived from quality response was analyzed through chi square. It was supplemented with the description of quality responses given by the students to individual reading, writing and dictation. The qualitative analyses has been categorized in terms of themes identified for reading writing competencies given below class wise.

In addition to students' responses, the interview taken from stakeholders like classroom teachers, in-charge of cluster centre, parents, Block Education Officer and evaluation team members are analyzed and presented at the end.

Reading and Writing Competencies of Class I students

Reading Competencies

To assess the reading competencies, the questions given to students at different phase of assessment are incremental in terms of difficulty level. The tables in terms of these questions are presented below according to the competencies tested at different phases of assessment.

BASELINE ASSESSMENT

*Recognition of Alphabets / Syllables**

Table 1 and Table 2 represent the alphabet recognition skills of class I students in the base line assessment. In this question students were asked to read aloud nine alphabets/syllables and one word. From the Table 1, it is observed that 36.1% students in the schools managed by ELP team do not recognize any alphabets/syllables whereas in government teacher managed schools it is only 15.1%.

Table - 1

Recognition of Alphabets by class I students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	30 (18.1)	49 (29.5)	79 (47.6)
NO	25 (15.1)	60 (36.1)	85 (51.2)
No Response	---	2 (1.2)	2 (1.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 2.36 P > .05			

In table 2 numbers of alphabets and syllables recognized by class 1 students is also widely varied from 0 to 9. However, in both the cases there is no significant association between the nature of intervention and response obtained by the students.

***Note:** *The term alphabet connotes the alphasyllables of Devanagari. The term syllable connotes an alphasyllable plus matra (or abbreviated vowel) or an akshara. This terminology has been used through this report.*

Table - 2

Number of Alphabets/syllables recognised by Class I students in Baseline Assessment			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	25 (15.1)	58 (34.9)	83 (50.0)
1	10 (6.0)	21 (12.7)	31 (18.7)
2	5 (3.0)	10 (6.0)	15 (9.0)
3	1 (0.6)	1 (0.6)	2 (1.2)
4	2 (1.2)	3 (1.8)	5 (3.0)
5	4 (2.4)	6 (3.6)	10 (6.0)
6	3 (1.8)	5 (3.0)	8 (4.8)
7	--	1 (0.6)	1 (0.6)
8	--	2 (1.2)	2 (1.2)
9	5 (3.0)	4 (2.4)	9 (5.4)
Percentages are in Parenthesis			
Chi Sqr. Value: 4.53 P > .05			

Basically it was observed that the students generally recognized alphabets (प, अ, न, ल, म, क) but very few recognized all the given syllables (पा, ना, का,)

Table 3 includes the ability of students in reading alphabets/syllables (aksharas) i.e. with मात्रा / *MATRA*. The results also reveal that majority of students in both the schools are unable to read it.

Table - 3

Reading Syllables (Alphabets with Matra) by Class I students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
Yes	5 (3.0)	3 (1.8)	8 (4.8)
No	50 (30.3)	107 (64.8)	157 (95.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 3.21 P > .05			

Association of Sounds and Symbols

In Baseline assessment the word reading behaviour of class I students was also examined in both types of schools (Table 4). It was found that 65.1% of students in schools managed by ELP team were unable to read words where it is only 30.1% in schools managed by government teachers. However, chi-square value is not significant.

Table - 4

Word Reading by Class I students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
Yes	5 (3.00)	3 (1.8)	8 (4.8)
No	50 (30.1)	108 (65.1)	158 (95.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 3.27 P > .05			

Midterm Assessment

Phonemic awareness of students is an important skill of reading. This skill was assessed in the mid-term assessment in depth after the intervention for duration of five months by ELP team. In midterm assessment to test the sound and symbol association skill, students were asked to encircle the letters/syllables written on the question paper associating with the initial sound of the spoken word. Five words were read out (पालक, नमक, मकान, काली, आम,) and 'ten' alphabets/syllables were written on the question paper from which the correct one to be chosen. Table 5 and table 6 represent the percentage of students able to identify the first letter of the spoken words and of number of letters identified by the students respectively. In both the cases the chi-square value is highly significant. It is observed that 60.3 % of students in schools managed by ELP team are able to identify the first letter of the word based on sound whereas it is only 26.7 % of students in case of schools managed by government teachers.

Table - 5

Identify and mark the first letter of word after listening (Class I students in Midterm Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
Yes	39 (26.7)	88 (60.3)	127 (87.0)
No	17 (11.6)	2 (1.4)	19 (13.0)
Percentages are in Parenthesis			
Chi Sqr. Value: 24.14 P < .0001			

Table - 6

Number of letters/syllables marked correctly on the basis of first letter of the spoken word. (Class I students in Midterm assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	17 (12.1)	1 (0.7)	18 (12.8)
1	10 (7.1)	1 (0.7)	11 (7.8)
2	4 (2.8)	3 (2.1)	7 (5.0)
3	9 (6.4)	2 (1.4)	11 (7.8)
4	11 (7.8)	8 (5.7)	19 (13.5)
5	5 (3.5)	70 (49.6)	75 (53.2)
Percentages are given in Parenthesis			
Chi Sqr. Value: 80.43 , P < .0001			

Regarding number of letters/syllables identified correctly, it is found that 49.6% of students in ELP team managed schools identify '5' letters/syllables correctly whereas 7.8 % in government teacher managed schools identify only '4' letters/syllables, even 12.8 % of student are unable to identify any single letter/syllables.

In government managed schools the first letter/syllables पा, आ and म are identified invariably whereas in case of school managed by ELP team all the five letters/syllables i.e., पा, आ, न, का and म are identified correctly. It shows that through intervention the ability to associate sound with the symbol has been enhanced. This is an important step towards early reading behaviour.

Further, attempt was made to identify how students are integrating different sounds symbols during the process of constructing word. In this question 'eleven' words were written on the question paper. The task of student was to mark correctly 'five' words spoken by teachers serially. Majority of words were '2' syllables words with *MATRAS*.

But interestingly it is found that (Table 7) in mid-term assessment 40.1% percent of students in school managed by ELP team identified all the 'five' words correctly whereas it is only 2.1 % in schools managed by government teachers. Even 10.6 % of students in schools managed by government teachers could not answer whereas it is 3.5 % in schools managed by ELP team. More students i.e. around 19 percent identified 'two' words or 'three' words correctly in schools managed by government teachers but in case of schools managed by ELP team majority of students identified four or five words correctly. In case of school managed by government teachers the words only having *MATRA* of आ (आ की मात्रा) are

identified correctly by the students. They find difficulty in words having *MATRA* of इ (नीला, पीला, माली, नाली, पानी, काली), but in schools managed by ELP team majority of students identified all the words correctly with *MATRA* of आ and mixed with *MATRA* of इ. This quality response proves that the approach applied by the ELP team has developed the phonemic awareness and letter/syllables recognition skills very efficiently, which is inevitable for success at early stage of reading.

Table - 7

Identify correct spoken words and mark. (Class I students in Midterm assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	15 (10.6)	5 (3.5)	20 (14.1)
1	6 (4.2)	1 (0.7)	7 (4.9)
2	13 (9.2)	3 (2.1)	16 (11.3)
3	14 (9.9)	4 (2.8)	18 (12.7)
4	5 (3.5)	16 (11.3)	21 (14.8)
5	3 (2.1)	57 (40.1)	60 (42.3)
Percentages are given in Parenthesis			
Chi Sq. Value: 71.59 , P < .0001			

End Term Assessment

In reading competencies the the meaning construction is a very important dimension. It was tested in phase 'III' (end-term assessment) after duration of four months in which sufficient inputs were provided by ELP team. This skill was analyzed through the children's ability to construct meaningful words and then draw pictures to show the word-meaning. The children were also required to match the correct words spoken by teachers and the words written on the question paper. Construction of meaningful words was examined and presented in Tables No. 8 to 19.

To assess the construction of meaningful words two questions were given to the students, in the first question related to constructing words from a given alphasyllable chart which consists of 'twelve' cells with one letter/syllables each. The responses of the students were analyzed in terms of different levels of complexity i.e. constructing meaningful words by combining letters/syllables from any cell, from the adjoining cells, from distance cells, by repeating letters from same cell etc. These dimensions are covered to find out the students understanding about the words constructed by him and the complexity of the underlying processing.

Table 8 consists of meaningful and meaningless words constructed by students by combining letters/syllables from alpha-syllable chart. It is observed that significant difference is found in the case of constructing meaningful words but not in the case of constructing meaningless words. In the case of meaningful words, students of school managed by ELP team are significantly different from students of school managed by government teachers. Majority of students in ELP team managed school are able to form 'nine' and 'ten' meaningful words form alpha-syllable chart, whereas in the case of government teacher managed schools majority of students (21.5%) are not able to construct a single meaningful word. The words constructed are basically two or mono syllables words like आम, चारा, कल, गाना, मासी, तेल, नाक, माला etc. In case of ELP team managed schools the students are also able to form 'three' letters bi and polysyllabic words like कमल, कमरा, चालक, चालाक, कमला but not a single student of government teacher managed school are able to form 'three' letters bi and polysyllabic words.

Table - 8

Construct Meaningful and Meaningless words from Alpha-syllable Chart (Class I students in End term assessment)						
Responses	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	31 (21.5)	7 (4.9)	38 (26.4)	39 (27.1)	75 (52.1)	114(79.2)
1	1 (0.7)	1 (0.7)	2 (1.4)	9 (6.3)	12 (8.3)	21 (14.6)
2	2 (1.4)	----	2 (1.4)	3 (2.1)	3 (2.1)	6 (4.2)
3	3 (2.1)	1 (0.7)	4 (2.8)	1 (0.7)	1 (0.7)	2 (1.4)
4	3 (2.1)	----	3 (2.1)	1 (0.7)	---	1 (0.7)
5	3 (2.1)	4 (2.8)	7 (4.9)	----	----	----
6	4 (2.8)	3 (2.1)	7 (4.9)	----	----	----
7	1 (0.7)	7 (4.9)	8 (5.6)	----	----	----
8	2 (1.4)	7 (4.9)	9 (6.3)	----	----	----
9	3 (2.1)	15 (10.4)	18 (12.5)	----	----	----
10	----	42 (29.2)	42 (29.2)	----	----	----
11	-----	3 (2.1)	3 (2.1)	----	----	----
12	-----	1 (0.7)	1 (0.7)	----	----	----
Percentages are given in Parenthesis						
Chi Sqr. Value: 78.13 , P < .0001				Chi Sqr. Value: 2.98 , P > .05		

Meaningful words were examined to see the percentage of students combine letters from adjoining cell to construct such words, it was observed (Table No. 9) that majority of students of ELP team managed school construct 'five' and 'six' words by combining letters from the nearest cell. But the evidence is significantly lower in case of students of school managed by government teachers, (The words are आम, चारा, गाना, नाक, तेल, सीमा)

Table - 9

Construct Meaningful and Meaningless words by adding adjoining letters from Alphabet Chart (Class I students in End term assessment)						
Responses	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	34 (23.6)	8 (5.6)	42 (29.2)	50 (35.0)	89 (62.2)	139 (97.2)
1	2 (1.4)	1 (0.7)	3 (2.1)	1 (0.7)	2 (1.4)	3 (2.1)
2	3 (2.1)	3 (2.1)	6 (4.2)	1 (0.7)	-----	1 (0.7)
3	2 (1.4)	4 (2.8)	6 (4.2)	---	---	---
4	3 (2.1)	12 (8.3)	15 (10.4)	---	---	---
5	1 (0.7)	26 (18.1)	27 (18.8)	----	----	----
6	4 (2.8)	26 (18.1)	30 (20.8)	----	----	----
7	4 (2.8)	6 (4.2)	10 (6.9)	----	----	----
8	-----	4 (2.8)	4 (2.8)	----	----	----
9	-----	1 (0.7)	1 (0.7)	----	----	----
Percentages are given in Parenthesis						
Chi Sqr. Value: 61.43 , P < .0001				Chi Sqr. Value: 1.77 , P > .05		

The same pattern of results is also observed from the analysis of meaningful words constructed by combining letters from distant cells (Table - 10). In case of students of schools managed by ELP team the higher percentage are able to construct one to three words by combining distant alphabets / syllables. However, few students are also able to construct four and five words. In case of students of schools managed by government teachers majority of students i.e. 33.3% could not construct a single meaningful word. The words are कमला, लाना, कल, माचा, कमरा, माल etc.

Table - 10

Construct Meaningful and Meaningless words by combining distance letters from Alpha-syllable Chart (Class I students in End term assessment)						
Responses	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	48 (33.3)	15 (10.4)	63 (43.8)	48 (33.8)	85 (59.9)	133 (93.7)
1	3 (2.1)	16 (11.1)	19 (13.2)	4 (2.8)	4 (2.8)	8 (5.6)
2	1 (0.7)	24 (16.7)	25 (17.4)	---	---	---
3	1 (0.7)	18 (12.5)	19 (13.2)	1 (0.7)	-----	1 (0.7)
4	----	9 (6.3)	9 (6.3)	---	---	---
5	----	8 (5.6)	8 (5.6)	----	----	----
6	-----	1 (0.7)	1 (0.7)	----	----	----
Percentages are given in Parenthesis						
Chi Sqr. Value: 75.80 , P < .0001				Chi Sqr. Value: 2.315 , P > .05		

The data related to constructing meaningful words by repeating letters of the same cell reveals that there is no significant difference between both the groups in terms of number of meaningful words and types of schools. It means only few students in schools managed by ELP team construct one meaningful word (10.5%). (See Table 11). But there is a significant difference between students of both type of schools in case of constructing meaningful words by reversing letters given in a sequence in alphabet chart. About 30 percent and 11 percent students of ELP team managed schools are able to construct one and two words respectively by reversing letters, where as it is only 5% percent and 0.7% percent in case of schools managed by govt. teachers. It is also to be noted that 30.6% of students of schools managed by government teachers and 21.5% of ELP team managed schools could not construct a single word (Table No. 12).

Very few students in schools managed by government teachers simply copy the letters from alphabet chart (Table No. 13). Ability to combine alphasyllables for constructing meaningful words, there was a significant difference between both types of schools. It is obvious that towards the end of experimental treatment majority of students managed by ELP team develop this complex ability of reading. In case of students of government teacher managed schools the percentage is significantly less and even 22.2% of students could not construct a single meaningful word (Table no. 14).

Table - 11

Construct Meaningful and Meaningless words by repeating letter from Alpha-syllable Chart (Class I students in End term assessment)						
Responses	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	48 (33.6)	73 (51.0)	121 (84.6)	49 (35.0)	87 (62.1)	136 (97.1)
1	2 (1.4)	15 (10.5)	17 (11.9)	2 (1.4)	1 (0.7)	3 (2.1)
2	1 (0.7)	2 (1.4)	3 (2.1)	1 (0.7)	---	1 (0.7)
3	1 (0.7)	---	1 (0.7)	---	----	---
4	1 (0.7)	---	1 (0.7)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 8.43 , P > .05				Chi Sqr. Value: 2.88 , P > .05		

Table - 12

Construct Meaningful and Meaningless words by reversing the letter given in sequence from Alpha-syllable Chart (Class I students in End term assessment)						
Responses	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	44 (30.6)	31 (21.5)	75 (52.1)	52 (36.1)	91 (63.2)	143 (99.3)
1	7 (4.9)	43 (29.9)	50 (34.7)	1 (0.7)	---	1 (0.7)
2	1 (0.7)	16 (11.1)	17 (11.8)	---	---	---
3	1 (0.7)	1 (0.7)	2 (1.4)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 33.73 , P < .0001				Chi Sqr. Value: 1.73 , P > .05		

Table - 13

Copy the letters from Alpha-syllable Chart (Class I students in End termAssessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
Yes	9 (6.5)	1 (0.7)	10 (7.2)
No	40 (29.0)	84 (60.9)	124 (89.9)
No Response	4 (2.9)	----	4 (2.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 19.65 P < .0001			

Table - 14

Construct Meaningful and Meaningless words by using Alphasyllables from Alpha-syllable Chart (Class I students in End term assessment)						
Responses	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	32 (22.2)	8 (5.6)	40 (27.8)	43 (29.9)	81 (56.3)	124 (86.1)
1	1 (0.7)	---	1 (0.7)	7 (4.9)	8 (5.6)	15 (10.4)
2	3 (2.1)	1 (0.7)	4 (2.8)	1 (0.7)	2 (1.4)	3 (2.1)
3	4 (2.8)	---	4 (2.8)	1 (0.7)	---	1 (0.7)
4	1 (0.7)	3 (2.1)	4 (2.8)	1 (0.7)	---	1 (0.7)
5	5 (3.5)	3 (2.1)	8 (5.6)	---	---	---
6	2 (1.4)	6 (4.2)	8 (5.6)	---	---	---
7	---	8 (5.6)	8 (5.6)	---	---	---
8	3 (2.1)	15 (10.4)	18 (12.5)	---	---	---
9	2 (1.4)	18 (12.5)	20 (13.9)	---	---	---
10	---	28 (19.4)	28 (19.4)	---	---	---
12	---	1 (0.7)	1 (0.7)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 33.73 , P < .0001				Chi Sqr. Value: 4.32 , P > .05		

To explain another quality of constructing meaningful words attempt was made to identify how many words consist of two, three and more letters/syllables were constructed by students of both type of schools. The result was also encouraging in favour of ELP approach as presented in Table No. 15. In case of two and three letter words these was a significant difference between government teacher managed and ELP team managed schools. The majority students of ELP team managed schools construct 8 to 10 two letter words and 1 to 2 three letter words.

Table - 15

Construct two and three letters words from Alpha-syllable Chart (Class I students in End term assessment)						
Responses	Two Letter Words			Three Letter Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	32 (22.5)	7 (4.9)	39 (27.5)	53 (36.8)	64 (44.4)	117 (81.3)
1	1 (0.7)	1 (0.7)	2 (1.4)	---	20 (13.9)	20 (13.9)
2	2 (1.4)	1 (0.7)	3 (2.1)	---	7 (4.9)	7 (4.9)
3	2 (1.4)	1 (0.7)	3 (2.1)	---	---	---
4	2 (1.4)	1 (0.7)	3 (2.1)	---	---	---
5	2 (1.4)	5 (3.5)	7 (4.9)	---	---	---
6	4 (2.8)	4 (2.8)	8 (5.6)	---	---	---
7	1 (0.7)	5 (3.5)	6 (4.2)	---	---	---
8	2 (1.4)	18 (12.7)	20 (14.1)	---	---	---
9	3 (2.1)	22 (15.5)	25 (17.6)	---	---	---
10	---	23 (16.2)	23 (16.2)	---	---	---
11	---	2 (1.4)	2 (1.4)	---	---	---
12	---	1 (0.7)	1 (0.7)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 68.38 , P < .0001				Chi Sqr. Value: 19.35 , P < .0001		

Constructing meaningful words is obviously helpful for increasing vocabulary of the students. From the students' responses to word construction, the number of words constructed on their own without and with the help of alphabet chart was examined. The students were also allowed to construct words in Hindi and Marwari. The results presented in Table 16 and 17 are also in favour of students treated through ELP approach. These students not only construct more number of words in Hindi but also some words in Marwari in comparison to students taught by Government teachers in term of early literacy skills.

Table - 16

Construct Meaningful words on their own (Class I students in End term assessment)						
Number of words	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	50 (34.7)	75 (52.1)	125 (86.8)	47 (32.6)	85 (59.0)	132 (91.7)
1	3 (2.1)	14 (9.7)	16 (11.1)	4 (2.8)	5 (3.5)	9 (6.3)
2	---	2 (1.4)	2 (1.4)	2 (1.4)	1 (0.7)	3 (2.1)
Percentages are given in Parenthesis						
Chi Sqr. Value: 7.49, P < .05				Chi Sqr. Value: 1.46, P > .05		

Table - 17

Construct Meaningful words on their own by choosing letters from Alpha-syllable Chart (Class I students in End term assessment)						
Number of words	Hindi			Marwari		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	32 (22.2)	8 (5.6)	40 (27.8)	50 (34.7)	55 (38.2)	105 (72.9)
1	1 (0.7)	1 (0.7)	2 (1.4)	---	32 (22.2)	32 (22.2)
2	3 (2.1)	---	3 (2.1)	2 (1.4)	3 (2.1)	5 (3.5)
3	3 (2.1)	1 (0.7)	4 (2.8)	1 (0.7)	---	1 (0.7)
4	2 (1.4)	3 (2.1)	5 (3.5)	---	1 (0.7)	1 (0.7)
5	6 (4.2)	6 (4.2)	12 (8.3)	---	---	---
6	2 (1.4)	3 (2.1)	5 (3.5)	---	---	---
7		8 (5.6)	8 (5.6)	---	---	---
8	1 (0.7)	9 (6.3)	10 (6.9)	---	---	---
9	3 (2.1)	28 (19.4)	31 (21.5)	---	---	---
10	----	21 (14.6)	21 (14.6)	---	---	---
11	----	3 (2.1)	3 (2.1)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 72.37, P < .0001				Chi Sqr. Value: 26.24, P < .0001		

Identifying the correct written form of a spoken words was another task to test word recognition of students in class - 1. In this question twelve words are written in the question paper. The evaluation team member read one word loudly and the task of student was to identify the written form of the same

word from the given words and then encircle it. The result presented in Table 18 reveals that both the groups of students differ significantly in identifying the correct written form of the spoken words. A great majority of students (54.2%) of schools managed by ELP team identified all the five spoken words correctly.

Table - 18

Identify correct spoken words and mark (Class I students in End term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	18 (12.5)	3 (2.1)	21 (14.6)
1	6 (4.2)	----	6 (4.2)
2	5 (3.5)	----	5 (3.5)
3	10 (6.9)	2 (1.42)	12 (8.3)
4	4 (2.8)	8 (5.6)	12 (8.3)
5	10 (6.9)	78 (54.2)	88 (61.1)
Percentages are given in Parenthesis			
Chi Sqr. Value: 76.20 , P < .0001			

Table 19 represents the percentage of students who are able to draw picture of the word constructed by them in both type of schools. This task very clearly manifests the internal word meaning of the constructed word. The highly significant result support the efficiency of ELP approach in supporting meaning based reading ability of students at early stage of schooling through the process of visualising the meanings of written words. In the schools managed by ELP team the student were able to draw picture of ten words. However, this is limited to three words in case of students managed by Government teachers. Majority of students (32.6%) in government teacher managed schools demonstrate their inability to represent the meaning of any single word out of five words constructed by them.

Table - 19

Draw picture to visualise word meaning (Class I students in End term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	47 (32.6)	16 (11.1)	63 (43.8)
1	2 (1.4)	5 (3.5)	7 (5.0)
2	3 (2.1)	15 (10.4)	18 (12.5)
3	1 (0.7)	16 (11.1)	17 (11.8)
4	----	13 (9.0)	13 (9.0)
5	----	10 (6.9)	10 (6.9)
6	----	6 (4.2)	6 (4.2)
7	----	8 (5.6)	8 (5.6)
9	----	1 (0.7)	1 (0.7)
10	----	1 (0.7)	1 (0.7)
Percentages are given in Parenthesis			
Chi Sqr. Value: 71.74 , P < .0001			

Writing skills

Baseline Assessment

A child's writing development parallels their development as a reader. Print awareness develops in young children as a result of being read to by adults and having other literacy experiences. ELP approach includes all such practices during the early stage of literacy training. To assess the writing skills letters, words and sentences were dictated by the evaluation team member at different phase of assessments. In the Baseline assessment nine letters and one word with two letters was dictated by the evaluation team member. Gradually, the difficulty level was increased from mid term assessment to end term assessment. In mid term assessment seven letters and three words with two letters and in end term assessment five letter with MATRA, three words and a sentence were dictated to the students. The writing skill of students on both type of schools are presented in Table No. 20. Majority of students in both type of schools were unable to write the letters dictated to them. There was also no significant

difference between the two types of treatment groups. It means students of schools managed by Government teachers and ELP team are not different in term their initial writing skills.

Table - 20

Writing Alphabets with Matra by Class I students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
Yes	6 (3.6)	10 (6.1)	16 (9.7)
No	49 (29.7)	100 (60.6)	149 (90.3)
Percentages are in Parenthesis			
Chi Sqr. Value: 0.14 P > .05			

Mid Term Assessment

In midterm assessment both letters and words were dictated to the students. Table 21 represents the number of letter written correctly by the students of both type of schools in terms of treatment. The result shown the highly significant difference between the two groups and the students of schools managed by ELP team write more number of words correctly than students of schools managed by Government teachers. Majority students write five to seven letters correctly in class I of ELP team managed schools. Basically the letter wrote correctly were with MATRA (like पा, ला, ना, नी, की, का). Though no specific trend was visible in term of type of letter written wrongly, but it was found that more number of students committed mistake in writing letter with E MATRA (ई की MATRA).

Table - 21

Number of alphabets/syllables write correctly with Matra (Class I students in Midterm assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	32 (22.5)	11 (7.7)	43 (30.3)
1	8 (5.6)	1 (0.7)	9 (6.3)
2	1 (0.7)	2 (1.4)	3 (2.1)
3	3 (2.1)	3 (2.1)	6 (4.2)
4	6 (4.2)	7 (4.9)	13 (9.2)
5	2 (1.4)	10 (7.0)	12 (8.5)
6	3 (2.1)	22 (15.5)	25 (17.6)
7	1 (0.7)	30 (21.1)	31 (21.8)
Percentages are given in Parenthesis			
Chi Sqr. Value: 59.23 , P < .0001			

In term of writing words (Table 22) it was found that 32.4% of students of ELP managed schools were able to write all the three words correctly and the result is highly significant. Also 21.1% students of ELP managed schools and 34.5% of Government teacher managed school could not able to write a single word correctly. The error pattern visible in writing words reveals that some students substituted letter and *MATRAs* to change the word dictated by the evaluation team member. For example (NALA as MALA, PANI as PANA. In other cased the combination was unrelated like NANA, KALI, NINA etc.)

Table - 22

Number of words write correctly through dictation (Class I students in Midterm assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	49 (34.5)	30 (21.1)	79 (55.6)
1	6 (4.2)	5 (3.5)	11 (7.7)
2	-----	5 (3.5)	5 (3.5)
3	1 (0.7)	46 (32.4)	47 (33.1)
Percentages are given in Parenthesis			
Chi Sqr. Value: 48.58 , P < .0001			

End Term Assessment

In end term assessment the writing skills were analysed from dictation as well as to what extent students identify the correct spoken words and write it correctly. The table 23 represents the words identified and written correctly. From the result it is observed that 48.68% of students from ELP managed school were able to write all the five words correctly (PALAK, CHITA, KACHRA, GARA, ACHAR) where as it is only 6.9% students in case of schools managed by government teachers. Even 22.2% or students in these schools were unable to write a single word correctly. Generally, in mistake patterns the letters were substituted and students had difficulty in using *MATRAs* meaningfully (MATRA, TARA, NAMAK, KALI, EMLI). This shows that children are unable to establish correct sound symbols and use phonic knowledgerelations for construction of words. But such types of mistakes were very less in schools managed by ELP team.

Table - 23

Write the correct spoken words (Class I students in End term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	32 (22.2)	7 (4.9)	39 (27.1)
1	3 (2.1)	----	3 (2.1)
2	3 (2.1)	4 (2.8)	7 (4.9)
3	3 (2.1)	1 (0.7)	4 (2.8)
4	2 (1.4)	9 (6.3)	11 (7.6)
5	10 (6.9)	70 (48.6)	80 (55.6)
Percentages are given in Parenthesis			
Chi Sqr. Value: 64.05 , P < .0001			

Dictation task in end term assessment includes 5 letter (2 syllables and 3 alphabets), three words and a sentence. The result of writing syllables and alphabets is presented in Table-24. The difference is highly significant in case of writing both syllables and alphabets and students of ELP managed schools perform better than students managed by government teachers. In ELP team managed schools, 45.8% and 32.6% of students answered all the syllables and alphabets correctly whereas it is on 6.3% and 7.8% in government teacher managed school. Majority of students in government teacher managed school i.e. 27.5% and 27.0% could not write syllables and alphabets respectively.

Table - 24

Write correct spoken syllables and alphabets (Class I students in End term assessment)						
Number of syllables/al- phabets	Syllables			Alphabets		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	39 (27.5)	12 (8.5)	51 (35.9)	38 (27.0)	9 (6.4)	47 (33.3)
1	5 (3.5)	12 (8.5)	17 (12.0)	3 (2.1)	5 (3.5)	8 (5.7)
2	9 (6.3)	65 (45.8)	74 (52.1)	---	29 (20.6)	29 (20.6)
3	---	---	---	11 (7.8)	46 (32.6)	57 (40.4)
Percentages are given in Parenthesis						
Chi Sqr. Value: 53.89 , P < .0001				Chi Sqr. Value: 63.55 , P < .0001		

Table - 25

Write Correct sentences (Class I students in End term Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	3 (2.1)	60 (41.7)	63 (43.8)
NO	50 (34.7)	30 (20.8)	80 (55.6)
No Response	---	1 (0.7)	1 (0.7)
Percentages are in Parenthesis			
Chi Sqr. Value: 51.10 P < .0001			

Table 25 includes the performance of students on writing the dictated sentence correctly. In End term assessment the writing skills of students in ELP managed schools are significantly better than students of schools managed by Government teachers. It clearly shows that students treated through ELP approach developed both initial reading and writing skills efficiently.

Reading and writing skills of Class II students

ELP intervention was carried out in three classes (Class I, Class II and Class III). As language learning is developmental in nature, the intervention strategies were also planned according to grade level. In the same manner the evaluation questions were also grade appropriate and competency based. Similar to Class I, the Baseline assessment of the class II also evaluated the recognizing of individual letters and syllables, drawing pictures on their own and writing letters and words dictated by the evaluation team member. In mid term assessment it was confined to constructing and writing words in addition to dictation of letters and words. In end term assessment, the focus was made on constructing words, reading sentences and answering questions, draw pictures (meaning construction), dictation of letters, words and sentence.

For qualitative analysis the responses of students on reading and writing tasks were categorized separately, according to their performance, at difference phase of evaluation and these are presented below:

Reading Skills

To assess the reading skills at the initial level, nine letters/syllables and one word was given to students for individual reading. The basic purpose was to find out the competency i.e. recognition of alphabets and syllables which is precursor to reading.

Baseline Assessment

Recognition of alphabets/syllables

The identification of alphabets and syllables are presented in Table 26 and 27 which is measured initially in class II. Both table 26 and 27 do not reveal any significant difference between both type of treatment groups. This shows that at initial level students of both types of schools do not differ in identifying alphabets and syllables. The same trend is also reflected in reading words (Table 28) and reading words with *MATRAS* (Table 29). Regarding the initial skills of reading comprehension, the baseline assessment clearly shows that both the groups are equal in such early literacy competencies.

Table - 26

Recognition of Alphabets by class II students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	43 (32.1)	72 (53.7)	115 (85.8)
NO	9 (6.7)	10 (7.5)	19 (14.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 0.68 P > .05			

Table - 27

Number of Alphabets/syllables recognised by Class II students in Baseline Assessment			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	8 (6.0)	10 (7.5)	18 (13.4)
1	6 (4.5)	7 (5.2)	13 (9.7)
2	4 (3.0)	4 (3.0)	8 (6.0)
3	5 (3.7)	7 (5.2)	12 (9.0)
4	7 (5.2)	10 (7.5)	17 (12.7)
5	5 (3.7)	15 (11.2)	20 (14.9)
6	8 (6.0)	9 (6.7)	17 (12.7)
7	1 (0.7)	4 (3.0)	5 (3.7)
8	1 (0.7)	3 (2.2)	4 (3.0)
9	7 (5.2)	13 (9.7)	20 (14.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 4.32 P > .05			

Table - 28

Reading words by class II students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	14 (10.4)	20 (14.9)	34 (25.4)
NO	38 (28.4)	62 (46.3)	100 (74.6)
Percentages are in Parenthesis			
Chi Sqr. Value: 0.11 P > .05			

Table - 29

Read words with Matra by class II students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	15 (11.1)	18 (13.3)	33 (24.4)
NO	38 (28.1)	64 (47.4)	102 (75.6)
Percentages are in Parenthesis			
Chi Sqr. Value: 0.70 P > .05			

Mid Term Assessment

During mid-term assessment the skills assessed were identification of alphabets/syllables from alphabet chart and constructing a meaningful word by adding letters to the first letter given in the questions. Also students were asked to construct word from the alpha-syllable chart which consisted twelve cells with a letter in each cell. The Table No.30 represents the meaningful words constructed by students by searching the relevant letter/syllables from alpha-syllable chart. It was observed that the performance of students in ELP managed school is significantly superior to their peers from school managed by government teachers. From the table it was observed that 37.1% of students in ELP team managed school construct all the five words whereas it is only 7.3% in schools managed by government teachers.

Table - 30

Construct meaningful words by searching letters/syllables from Alphabet Chart (Class II students in Midterm Assessment)			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	19 (15.3)	4 (3.2)	23 (18.5)
1	4 (3.2)	3 (2.4)	7 (5.6)
2	6 (4.8)	2 (1.6)	8 (6.5)
3	8 (6.5)	8 (6.5)	16 (12.9)
4	8 (6.5)	7 (5.6)	15 (12.1)
5	9 (7.3)	46 (37.1)	55 (44.4)
Percentages are in Parenthesis			
Chi Sqr. Value: 34.41 P < .0001			

To analyse the patterns of word construction the two letters words constructed by the students on their own were examined on detail. In this task students constructed any five words by choosing letters from alphabet chart and then draw pictures of these words to show their meaning. Table 31 represents meaningful and meaningless words constructed by students by using letters from alphabet chart. The results favour the superior performance of students in ELP team managed school (Chi square value is highly significant). Majority students in these schools were able to form four (13.2%) and five (17.9%) words whereas it is 6.6% and 4.7% respectively in schools managed by Govt. teachers. Even 26.4% of students could not construct a single meaningful word in Govt. teacher managed schools. The students of schools managed by ELP team were able to form more words with two letters and compound

MATRA (like मेला, साली, रेती, नाली etc.). They also formed three letters meaningful words (like रेतीला). This is not seen in case of students of Govt. teacher managed school.

Table - 31

Construct Meaningful and Meaningless words by selecting letter from Alpha-syllable Chart (Class II students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	28 (26.4)	1 (0.9)	29 (27.4)	40 (37.7)	29 (27.4)	69 (65.1)
1	4 (3.8)	3 (2.8)	7 (6.6)	6 (5.7)	13 (12.3)	19 (17.9)
2	5 (4.7)	6 (5.7)	11 (10.4)	6 (5.7)	6 (5.7)	12 (11.3)
3	5 (4.7)	7 (6.6)	12 (11.3)	2 (1.9)	2 (1.9)	4 (3.8)
4	7 (6.6)	14 (13.2)	21 (19.8)	---	2 (1.9)	2 (1.9)
5	5 (4.7)	19 (17.9)	24 (22.6)	---	---	---
6	---	2 (1.9)	2 (1.9)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 38.18 , P < .0001				Chi Sqr. Value: 6.29 , P > .05		

Regarding word constriction, Table - 32 represent to what extent students construct meaningful words by repeating the same letter/syllable from alphabet chart. The result reveals that there is no significant difference between both types of treatment groups. Majority of students in both the groups did not repeat the same letter/syllable to construct meaningful words. One such meaningful word construct by few students was NANA, LALA, etc.

Table - 32

Construct Meaningful and Meaningless words by repeating letter/syllable from Alpha-syllable Chart (Class II students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	39 (35.8)	38 (34.9)	77 (70.6)	44 (40.4)	54 (49.5)	98 (89.9)
1	12 (11.0)	19 (17.4)	31 (28.4)	7 (6.4)	1 (0.9)	8 (7.3)
2	1 (0.9)	---	1 (0.9)	1 (0.9)	2 (1.8)	3 (2.8)
Percentages are given in Parenthesis						
Chi Sqr. Value: 2.37 , P > .05				Chi Sqr. Value: 5.63 , P > .05		

Table 33 includes results of meaningful and meaningless words constructed with the help of adjacent letters from alphabet chart. The result is highly significant and the superiority of performance is also preserved by the students treated through ELP approach. The words are गाना, साग, चली, नाना, मेरे etc.

Table - 33

Construct Meaningful and Meaningless words by selecting adjacent letters/syllable from Alpha-syllable Chart (Class II students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	24 (19.4)	4 (3.2)	28 (22.6)	54 (43.5)	70 (56.5)	124 (100)
1	10 (8.1)	19 (15.3)	29 (23.4)	---	---	---
2	11 (8.9)	32 (25.8)	43 (34.7)	---	---	---
3	5 (4.0)	11 (8.9)	16 (12.9)	---	---	---
4	4 (3.2)	4 (3.2)	8 (6.5)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 27.98 , P < .0001				Chi Sqr. Value: ****, P ****		

The meaningful words constructed by students with the help of distantly located letters from Alpha-syllable chart are presented in Table-34. The same trend of results is also visible as observed in framing letters by selecting adjacent letters. This shows the understanding of meaningful word and fluency in combining sound-symbols to construct a meaningful word by students of schools managed by ELP team. Majority of students in these schools able to construct 2 (12.9%) and 3 (28.2%) meaningful words by selecting letters from distantly located cells of alpha-syllable chart (Examples of words - मेल, नाक, सारे, चना, नाटा etc.). The words formulated by these students reveal that they select the letter from distance cells randomly, which shows their complex cognitive processing.

To examine such complexity of cognitive processing the construction of words by reversing letters given in sequence from alpha-syllable chart were analysed and presented in Table 35. The result is highly significant in case of meaningful words and at .05 level in case of meaningless words. In case of meaningful words the students of ELP team managed school construct 1 to 4 words by reversing letters where as it is negligible in case of students managed by Govt. teachers. 52.2% of students could not construct on single word in these schools. Words constructed by students of ELP team managed schools

are varied in nature Example of words : तीली, गली, सारे, मेला, लाना etc.. In case of meaningless words though students are few but slightly higher in percentage in comparison to students of schools managed by Govt. teachers. The words constructed as लोमे, तीरे etc. could not establish any error pattern and may be due to a chance factor.

Table - 34

Construct Meaningful and Meaningless words by selecting distance letters from Alpha-syllable Chart (Class II students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	28 (22.6)	2 (1.6)	30 (24.2)	53 (43.1)	69 (56.1)	122 (99.2)
1	12 (9.7)	12 (9.7)	24 (19.4)	---	1 (0.8)	1 (0.8)
2	7 (5.6)	16 (12.9)	23 (18.5)	---	---	---
3	4 (3.2)	35 (28.2)	39 (31.5)	---	---	---
4	3 (2.4)	4 (3.2)	7 (5.6)	---	---	---
5	---	1 (0.8)	1 (0.8)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 50.61 , P < .0001				Chi Sqr. Value: 0.76, P > .05		

Table - 35

Construct Meaningful and Meaningless words by reversing letters given in sequence from Alpha-syllable Chart (Class II students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	48 (52.2)	7 (7.6)	55 (59.8)	53 (57.6)	31 (33.7)	84 (91.3)
1	4 (4.3)	13 (14.1)	17 (18.5)	1 (1.1)	5 (5.4)	6 (6.5)
2	2 (2.2)	10 (10.9)	12 (13.0)	---	2 (2.2)	2 (2.2)
3	---	6 (6.5)	6 (6.5)	---	---	---
4	---	2 (2.2)	2 (2.2)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 47.31 , P < .0001				Chi Sqr. Value: 7.88, P < .05		

Developing sound and symbol relationships and representing the meaning of words are skills which develop the reading comprehension capacity to a great extent. It will help the students to construct words at recall level. It means the letters are not in front of the reader to recognize, but they can imagine the sound symbol relation to the meaningful word. Table 36 shows that in terms of making meaningful words on their own or at recall level, students managed by ELP team supersede the students managed by govt. teachers. It is significant at .05 level. However, majority of students i.e. 37.9 % in govt. teacher managed school and 39.5 % in ELP managed school could not construct a single word. As per cognitive characteristics at this age level (6-7 years), it is difficult to operate at recall level. But the intervention provided by ELP team helps to step forward gradually from recognition to recall level. The words construct in ELP managed schools were टेल, काला, नाट, कमल, वमि, etc. (Hindi words to be corrected)

Table - 36

Construct Meaningful and Meaningless words on their own without taking any help from alpha-syllable chart (Class II students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	47 (37.9)	49 (39.5)	96 (77.4)	47 (38.2)	50 (40.7)	97 (78.9)
1	5 (4.0)	5 (4.0)	10 (8.1)	2 (1.6)	15 (12.2)	17 (13.8)
2	2 (1.6)	2 (1.6)	4 (3.2)	1 (0.8)	2 (1.6)	3 (2.4)
3	---	---	---	1 (0.8)	3 (2.4)	4 (3.3)
4	---	7 (5.6)	7 (5.6)	1 (0.8)	---	1 (0.8)
5	---	6 (4.8)	6 (4.8)	1 (0.8)	---	1 (0.8)
6	---	1 (0.8)	1 (0.8)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 12.18 , P < .05				Chi Sqr. Value: 11.23, P < .05		

Table - 37 represents the meaning construction capability of students in terms of drawing a picture to show the meaning of the word constructed with the help of alpha-syllable chart. The result is highly significant and in favour of students managed by ELP team. They have drawn pictures of words like नाना, नाला, लाली, नाग एक, नाक etc.

Table - 38 includes the total number of words constructed by students in response to questions 1 and 2. Words constructed in Marwari, i.e. in their mother tongue, were also taken into consideration.

It is observed that students of ELP team managed schools are able to form 1 to 10 words whereas it is limited to 1 to 9 words in case of schools managed by Govt. teacher. In each case the percentage of students is more in case of schools managed by ELP team in comparison to the students of other group. Even in govt. teacher managed schools 14.5 % of students could not construct a single word. Also the students of ELP team managed schools construct more words in Marwari in comparison to the students of Govt. teacher managed schools showing that there is a link of the words constructed to their spoken language. In both the cases the results are highly significant.

Table - 37

Draw pictures to show word meaning (Class II students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	46 (37.1)	24 (19.4)	70 (56.5)
1	4 (3.2)	18 (14.5)	22 (17.7)
2	1 (0.8)	2 (1.6)	3 (2.4)
3	3 (2.4)	7 (5.6)	10 (8.1)
4	---	12 (9.7)	12 (9.7)
5	---	6 (4.8)	6 (4.8)
6	---	1 (0.8)	1 (0.8)
Percentages are given in Parenthesis			
Chi Sqr. Value: 35.28 , P < .0001			

Table - 38

Total number of words constructed in Hindi and Marwari (Class II students in Mid term assessment)						
Numbers	Hindi Words			Marwari Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	18 (14.5)	----	18 (14.5)	22 (17.7)	17 (13.7)	39 (31.5)
1	8 (6.5)	3 (2.4)	11 (8.9)	21 (16.9)	16 (12.9)	37 (29.8)
2	5 (4.0)	2 (1.6)	7 (5.6)	8 (6.5)	19 (15.3)	27 (21.8)
3	5 (4.0)	5 (4.0)	10 (8.1)	3 (2.4)	14 (11.3)	17 (13.7)
4	4 (3.2)	7 (5.6)	11 (8.9)	---	3 (2.4)	3 (2.4)
5	5 (4.0)	8 (6.5)	13 (10.5)	---	1 (0.8)	1 (0.8)
6	4 (3.2)	18 (14.5)	22 (17.7)	---	---	---
7	1 (0.8)	8 (6.5)	9 (7.3)	---	---	---
8	2 (1.6)	14 (11.3)	16 (12.9)	---	---	---
9	2 (1.6)	1 (0.8)	3 (2.4)	---	---	---
10	---	4 (3.2)	4 (3.2)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 49.52 , P < .0001				Chi Sqr. Value: 15.10, P < .01		

End Term Assessment

During end term assessment emphasis was mainly given to reading comprehension and writing skills. For evaluating reading comprehension skills the students were instructed to construct words by matching letters and on their own using any letter from alpha-syllable chart; read a sentence and answer the question, follow written instruction to draw a picture and individual loud reading of sentences. Writing skills were tested through dictation of letters, words and sentences.

In the first section of reading comprehension, the word constructed by students from the alpha-syllable chart are analysed critically and presented in the following tables. Table - 39 represents the performance of students in constructing meaningful and meaningless words by combining letters from alpha-syllable chart with alphabet/syllable given in the question paper. The result is highly significant in both cases. In case of meaningful words 48.0 % students of ELP team managed school construct all the five words whereas it is only 4.7 % in case of schools managed by Govt. teachers. Even. 11.8 % of students in these schools could not construct a single word. On the other hand majority of students in Govt. teacher managed school construct more meaningless words in comparison to students of schools managed by ELP team. For example a majority of students in Govt. teachers managed schools constructed meaningless words like हाजा, राघ, वेटाल, चीम, साहा, etc. A common trend emerging from the error pattern indicates that students are matching letters from the alpha-syllable chart to the first letter written on the question paper randomly without understanding the meaning. Such type of mistakes is committed by only 7 students in ELP team managed schools with 1 to 3 words. The results indicate the effectiveness and sustainable impact of ELP approach in developing literacy skills.

Table - 39

Construct Meaningful and Meaningless words by choosing correct letters from Alph-syllable Chart (Class II students in End term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	15 (11.8)	1 (0.8)	16 (12.6)	14 (11.0)	65 (51.2)	79 (62.2)
1	3 (2.4)	0 (0.0)	3 (2.4)	24 (18.9)	2 (1.6)	26 (20.5)
2	7 (5.5)	3 (2.4)	10 (7.9)	8 (6.3)	3 (2.4)	11 (8.7)
3	9 (7.1)	3 (2.4)	12 (9.4)	4 (3.1)	2 (1.6)	6 (4.7)
4	15 (11.8)	4 (3.1)	19 (15.0)	2 (1.6)	0 (0.0)	2 (1.6)
5	6 (4.7)	61 (48.0)	67 (52.8)	3 (2.4)	0 (0.0)	3 (2.4)
Percentages are given in Parenthesis						
Chi Sqr. Value: 70.35 , P < .0001				Chi Sqr. Value: 58.25 , P < .0001		

In another task students have to construct words on their own with the help of alpha-syllable chart and then draw pictures to represent the meanings of the words. Table - 40 represents the performance of students in constructing meaningful words by combing letters from alpha-syllable chart. The result shows a highly significant difference and favours the superior performance of students managed by ELP team. Majority of students able to construct 1 to 5 words in these schools but the percentage is less in case of Govt. teacher managed school. The words constructed are generally two letter words with MATRAS or mono and bisyllabic words. (Example : ताजा, घट, पानी, राजा, रानी etc.)

Table - 40

Construct Meaningful and Meaningless words by using letters from Alph-syllable Chart (Class II students in End term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	26 (20.5)	4 (3.1)	30 (23.6)	37 (29.4)	63 (50.0)	100 (79.4)
1	8 (6.3)	2 (1.6)	10 (7.9)	11 (8.7)	5 (4.0)	16 (12.7)
2	7 (5.5)	2 (1.6)	9 (7.1)	5 (4.0)	2 (1.6)	7 (5.6)
3	8 (6.3)	6 (4.7)	14 (11.0)	1 (0.8)	1 (0.8)	2 (1.6)
4	5 (3.9)	17 (13.4)	22 (17.3)	----	----	----
5	1 (0.8)	41 (32.3)	42 (33.1)	----	1 (0.8)	1 (0.8)
Percentages are given in Parenthesis						
Chi Sqr. Value: 66.35 , P < .0001				Chi Sqr. Value: 8.91 , P > .05		

Table - 41 includes the performance of students for constructing meaningful words by combining adjoining letters from the alpha-syllable chart. In this case also the result is highly significant and favours the performance of students treated by ELP approach. Constructing meaningful words by choosing distant letter from alphabet chart (Table 42) is also in favour of students managed by ELP team (example : ताजा, राजा, रानी etc.) Table - 43 presents the performance of students for constructing meaningful words by reversing letters from the alpha-syllable chart. The result is also highly significant and in favour of students managed by ELP Team. The words constructed are पानी, जाता, राही etc.)

Construction of meaningful words by repeating letters from alphabet chart is presented in Table - 44. Though it is significant at .05 level but only 7.9 % of students in ELP managed school constructed

word by repeating the same letter from alphabet chart whereas it is only 0-8 % in case of other group. The words are ताता, पापा,.

Table - 41

Construct Meaningful and Meaningless words by choosing nearest letters from Alpha-syllable Chart (Class II students in End term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	35 (28.0)	8 (6.4)	43 (34.4)	46 (41.4)	57 (51.4)	103 (92.8)
1	10 (8.0)	20 (16.0)	30 (24.0)	5 (4.5)	---	10 (7.9)
2	6 (4.8)	24 (19.2)	30 (24.0)	----	2 (1.8)	2 (1.8)
3	2 (1.6)	18 (14.4)	20 (16.0)	1 (0.9)		1 (0.9)
4	----	2 (1.6)	2 (1.6)	----	----	----
Percentages are given in Parenthesis						
Chi Sqr. Value: 39.46 , P < .0001				Chi Sqr. Value: 8.77 , P < .05		

Table - 42

Construct Meaningful and Meaningless words by choosing distance letters from Alpha-syllable Chart (Class II students in End term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	34 (27.0)	9 (7.1)	43 (34.1)	46 (36.5)	67 (53.2)	113(89.7)
1	13 (10.3)	32 (25.4)	45 (35.7)	6 (4.8)	3 (2.4)	9 (7.1)
2	6 (4.8)	21 (16.7)	27 (21.4)	2 (1.6)	1 (0.8)	3 (2.4)
3	1 (0.8)	9 (7.1)	10 (7.9)	---	---	---
4	----	1 (0.8)	1 (0.8)	----	1 (0.8)	1 (0.8)
Percentages are given in Parenthesis						
Chi Sqr. Value: 36.46 , P < .0001				Chi Sqr. Value: 3.74 , P > .05		

Table - 43

Construct Meaningful and Meaningless words by reversing letters from Alpha-syllable Chart (Class II students in End term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	44 (34.6)	15 (11.8)	59 (46.5)	52 (41.3)	72 (57.1)	124 (98.4)
1	11 (8.7)	50 (39.4)	61 (48.0)	2 (1.6)	---	2 (1.6)
2	---	7 (5.5)	7 (5.5)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 44.71 , P < .0001				Chi Sqr. Value: 2.71 , P > .05		

Table - 44

Construct Meaningful and Meaningless words by repeating letters from Alpha-syllable Chart (Class II students in End term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	54 (42.5)	62 (48.8)	116 (91.3)	53 (41.7)	72 (56.7)	125 (98.4)
1	1 (0.8)	10 (7.9)	11 (8.7)	1 (0.8)	---	1 (0.8)
2	---	---	---	1 (0.8)	---	1 (0.8)
Percentages are given in Parenthesis						
Chi Sqr. Value: 5.74 , P < .05				Chi Sqr. Value: 2.66 , P > .05		

From Table 45 it is observed that few students (3.2 %) in Govt. teacher managed school copy the alphabet from alphabet chart without constructing words.

Table - 45

Copy from Alpha-syllable Chart (Class II students in End term Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	4 (3.2)	0 (0.0)	4 (3.2)
NO	51 (40.5)	71 (56.3)	122 (96.8)
Percentages are in Parenthesis			
Chi Sqr. Value: 5.33 P < .05			

Table 46 consists of total number of words constructed by students in both type of intervention groups. In case of Hindi words constructed, the result is highly significant and the total number of words range from 1 to 10. In case of ELP team managed schools a higher percentage of students clustered at 8 to 10 words in comparison to students of Govt. teacher managed schools. In case of Marwari words though more number of students in ELP managed schools constructed 1 to 4 words but the result is not significant.

Table - 46

Total number of words made in Hindi and Marwari (Class II students in End term assessment)						
Numbers	Hindi Words			Marwari Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	8 (6.3)	1 (0.8)	9 (7.1)	39 (31.2)	35 (28.0)	74 (59.2)
1	5 (3.9)	1 (0.8)	6 (4.7)	12 (9.6)	25 (20.0)	37 (29.6)
2	13 (10.2)	3 (2.4)	16 (12.6)	4 (3.2)	7 (5.6)	11 (8.8)
3	7 (5.5)	1 (0.8)	8 (6.3)	---	1 (0.8)	1 (0.8)
4	2 (1.6)	1 (0.8)	3 (2.4)	---	2 (1.6)	2 (1.6)
5	5 (3.9)	2 (1.6)	7 (5.5)	---	---	---
6	2 (1.6)	1 (0.8)	3 (2.4)	---	---	---
7	5 (3.9)	6 (4.7)	11 (8.7)	---	---	---
8	2 (1.6)	12 (9.4)	14 (11.0)	---	---	---
9	4 (3.1)	22 (17.3)	26 (20.5)	---	---	---
10	2 (1.6)	22 (17.3)	24 (18.9)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 55.90 , P < .0001				Chi Sqr. Value: 6.90 , P >.05		

In the task of drawing picture to show word meaning, Table - 47 reveals a highly significant result favouring more percentage of students with word drawings in case of schools managed by ELP team. Around 33 % of students in Govt. teachers managed school could not draw a picture of single word. The example of words on which pictures drawn are ताजा, पानी, राजा, घर, रानी etc.

In another question students were given three related sentences to read and then answer written questions based on them. It is generally to test their understanding of sentence read by them. From Table 48, the highly significant result reveals that 46.5% students of ELP managed schools answered all the three questions correctly in writing, whereas it is only 11.8% in case of school managed by Govt.

teachers. Also in these schools 20.5% of students could not answer a single question whereas only 5.5 % in ELP team managed schools could not answer any question.

Table - 47

Draw picture to show word meaning (Class II students in End term assessment)			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	42 (33.1)	10 (7.9)	52 (40.9)
1	5 (3.9)	5 (3.9)	10 (7.0)
2	2 (1.6)	14 (11.0)	16 (12.6)
3	1 (0.8)	10 (7.9)	11 (8.7)
4	3 (2.4)	19 (15.0)	22 (17.3)
5	2 (1.6)	13 (10.2)	15 (11.8)
7	----	1 (0.8)	1 (0.8)
Percentages are in Parenthesis			
Chi Sqr. Value: 55.47 P > .0001			

Table - 48

Read the instruction and answer questions (Class II students in End term assessment)						
Numbers	Correct Answer			Wrong Answer		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	26 (20.5)	7 (5.5)	33 (26.0)	37 (31.6)	66 (56.4)	103 (88.0)
1	5 (3.9)	3 (2.4)	8 (6.3)	6 (5.1)	1 (0.9)	7 (6.0)
2	9 (7.1)	3 (2.4)	12 (9.4)	1 (0.9)	3 (2.6)	4 (3.4)
3	15 (11.8)	59 (46.5)	74 (58.3)	1 (0.9)	2 (1.7)	3 (2.6)
Percentages are given in Parenthesis						
Chi Sqr. Value: 39.02 , P < .0001				Chi Sqr. Value: 7.22 , P > .05		

In effective written communication answering in a complete sentence is more meaningful than in a word. Because the former one indicates the clear understanding of question as well as skillful written communication and later on will be helpful in answering open ended question. From Table-49, it is found that there is a significant difference between both type of intervention groups and 37.8 % of students in ELP team managed schools answer all the three questions by writing the answer in a complete sentence.

In contrast, it is only 7.9% in Govt. teacher managed schools. Specifically in these schools many students find difficulties to answer the question (तारे को देखकर कमली ने क्या किया ?) in a sentence.

Table - 49

Answer questions in words or sentences (Class II students in End term assessment)						
Numbers	Answer in words			Answer in sentences		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	45 (35.4)	69 (54.3)	114 (89.8)	33 (26.0)	15 (11.8)	48 (37.8)
1	4 (3.1)	2 (1.6)	6 (4.7)	6 (4.7)	3 (2.4)	9 (7.1)
2	1 (0.8)	1 (0.8)	2 (1.6)	6 (4.7)	6 (4.7)	12 (9.4)
3	5 (3.9)	---	5 (3.9)	10 (7.9)	48 (37.8)	58 (45.7)
Percentages are given in Parenthesis						
Chi Sqr. Value: 8.60 , P < .05				Chi Sqr. Value: 30.92 , P <.0001		

Obviously, the clarity of answer depends on one's understanding of question. For this purpose first the students have to read the instruction, understand it and then write the answer. Table 50 reveals that higher percentage of students (51.2%) in ELP team managed schools read the instruction first and then writes whereas it is only 23.6% in case of schools managed by Govt. teachers. This significant result clearly supports the process of ELP approach which develops these literacy skill in a systematic way at early stage.

Table - 50

Read instruction in writing first and then answer the questions (Class II students in End term Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	30 (23.6)	65 (51.2)	95 (74.8)
NO	24 (18.9)	6 (4.7)	30 (23.6)
No Response	1 (0.8)	1 (0.8)	2 (1.6)
Percentages are in Parenthesis			
Chi Sqr. Value: 21.81 P < .0001			

To find out the loud reading competency, students were given two sentences to read. Each student's reading behaviour was scored and presented in Table 51. The result is highly significant and

indicates the superior performance of students belonging to school treated by ELP approach. Majority of students in these schools are able to read all the two sentences fluently whereas 40.9 % of students in Govt. teachers managed school could not read a single sentence. Further, the reading behaviour of students was examined in terms of reading the sentence by breaking it up in to small parts or reading the whole sentence fluently. This indicates the word recognition skills in terms of reading the word as a single unit. Table 52 reveals that the result is highly significant and higher percentage of students (46.0%) in ELP team managed school read the whole sentence fluently in comparison to students of Govt. teacher managed school (15.9%).

Table - 51

Read the sentences fluently (Class II students in End term assessment)			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	52 (40.9)	18 (14.2)	70 (55.1)
1	---	14 (11.0)	14 (11.0)
2	3 (2.4)	40 (31.5)	43 (33.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 61.17 P < .0001			

Table - 52

Read sentences by deviding in to small parts (Class II students in End term Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	11 (9.7)	16 (14.2)	27 (23.9)
NO	18 (15.9)	52 (46.0)	70 (61.9)
No Response	13 (11.5)	3 (2.7)	16 (14.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 17.39 P < .0001			

Writing competencies of class II students

Writing of letter and words was a part of the processes of constructing words, writing answers to questions but in addition to this the writing through dictation was specifically scored for analysing the writing competencies of letter, word and sentence formation. In Baseline and Midterm assessment emphasis was given to the writing of letters/syllable with only one simple word, however, in End term assessment letters/syllable, words and a sentence were dictated.

Table 53, 54, and 55 represent the writing skills of students during Baseline assessment. Regarding writing of number of alphabets, there was no significant difference between both type of treatment groups. However, in case of writing words (Table 54) words with MATRAS (Table 55) there was a significant difference between the two treatment groups. The results indicate that more number of students in schools managed by ELP team are able to write correctly the word and word with MATRA in comparison to students of schools managed by Govt. teachers.

Table - 53

Number of Alphabets/syllables written by Class II students in Baseline Assessment			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	9 (6.7)	15 (11.2)	24 (17.9)
1	3 (2.2)	9 (6.7)	12 (9.0)
2	6 (4.5)	1 (0.7)	7 (5.2)
3	5 (3.7)	7 (5.2)	12 (9.0)
4	7 (5.2)	13 (9.7)	20 (14.9)
5	3 (2.2)	10 (7.5)	13 (9.7)
6	9 (6.7)	14 (10.4)	23 (17.2)
7	5 (3.7)	8 (6.0)	13 (9.7)
8	3 (2.2)	4 (3.0)	7 (5.2)
9	2 (1.5)	1 (0.7)	3 (2.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 10.01 P > .05			

Table - 54

Writing words by class II students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	19 (14.2)	13 (9.7)	32 (23.9)
NO	33 (24.6)	69 (51.5)	102 (76.1)
Percentages are in Parenthesis			
Chi Sqr. Value: 7.49 P < .01			

Table - 55

Write words with Matra by class II students in Baseline Assessment			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	21 (15.7)	14 (10.4)	35 (26.1)
NO	32 (23.9)	67 (50.0)	99 (73.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 8.28 P < .01			

Table - 56

Write the spoken alphabet/syllables correctly (Class II students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	16 (12.9)	3 (2.4)	19 (15.3)
1	4 (3.2)	---	4 (3.2)
2	3 (2.4)	---	3 (2.4)
3	1 (0.8)	1 (0.8)	2 (1.6)
4	2 (1.6)	---	2 (1.6)
5	4 (3.2)	1 (0.8)	5 (4.0)
6	7 (5.6)	6 (12.9)	13 (10.5)
7	5 (4.0)	5 (4.0)	10 (8.1)
8	11 (8.9)	16 (12.9)	27 (21.8)
9	1 (0.8)	38 (30.6)	39 (31.5)
Percentages are given in Parenthesis			
Chi Sqr. Value: 54.64 , P < .0001			

Mid Term Assessment

In mid term assessment the performance of students in writing both alphabets and syllables were improved to a great extent. It is due to the intervention implemented by ELP team. The significant result presented in Table - 56 shows that the majority of students in schools managed by ELP team write 8 to 9 words correctly in comparison to students of schools managed by Govt. teachers. From table 57 it is found that majority of students in Govt. teacher managed school write the wrong alphabets and syllables dictated by the evaluation team member. The error pattern indicates that students of Govt. teacher managed school committed mistake in both alphabets and syllables whereas few students in ELP managed

school are unable to write one or two syllables. This shows that the students of Govt. teachers managed school did not understand the sound symbol relationship correctly. One thing to be noted here that in Baseline assessment students of ELP team managed schools perform better in writing words and words with MATRA. Ideally, in treatment situation both groups should not differ initially. But this assumption is not correct in every situation. The treatment effect can be assessed by seeing the rate of improvement in comparison to the position at the beginning. In this case the students treated through ELP approach improved their performance after the intervention.

Table - 57

Write the spoken alphabet/syllables wrongly (Class II students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	22 (17.7)	44 (35.5)	66 (53.2)
1	12 (9.7)	22 (17.7)	34 (27.4)
2	12 (9.7)	4 (3.2)	16 (12.9)
3	3 (2.4)	---	3 (2.4)
4	3 (2.4)	---	3 (2.4)
5	1 (0.8)	---	1 (0.8)
8	1 (0.8)	---	1 (0.8)
Percentages are given in Parenthesis			
Chi Sqr. Value: 20.55 , P < .01			

Table 58 and 59 represent the performance of students on writing the words dictated by the evaluation team member. It is observed that 47.6% (Table 58) of the students in ELP team managed schools write the word (राजा) correctly whereas it is only 8.1 % in case of students in Govt. teacher managed school. On the other hand 15.6 % (Table 59) in Govt. teacher managed school write the same word wrongly in comparison to only 3.4% of students in ELP team managed schools. All the above results very clearly indicate the positive impact of ELP approach in developing writing skills of beginning learners.

End Term Assessment

In End term assessment it was found that the progress in writing skills were also sustained till the end of intervention. Table 60 includes the performance of students in writing 3 letters with MATRA (या, गी, बे). The result shows a highly significant difference between the two

treatment groups. Students of ELP team managed school (44.1%) write all the three letters with MATRA correctly whereas it is only 11.0 % in case of students taught by Govt. teachers. Even in the same management schools 18.1% of students unable to write a single letter with MATRA.

Table - 58

Write the spoken words correctly (Class II students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	44 (35.5)	11 (8.9)	55 (44.4)
1	10 (8.1)	59 (47.6)	69 (55.6)
Percentages are given in Parenthesis			
Chi Sqr. Value: 53.42 , P < .0001			

Table - 59

Write the spoken words wrongly (Class II students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	30 (25.9)	64 (55.2)	94 (81.0)
1	18 (15.6)	4 (3.4)	21 (18.1)
Percentages are given in Parenthesis			
Chi Sqr. Value: 18.45 , P < .0001			

Table - 60

Write correct syllable/alphabets through dictation (Class II students in End term assessment)			
Number	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	23 (18.1)	3 (2.4)	26 (20.5)
1	6 (4.7)	3 (2.4)	9 (7.1)
2	12 (9.4)	10 (7.9)	22 (17.3)
3	14 (11.0)	56 (44.1)	70 (55.1)
Percentages are in Parenthesis			
Chi Sqr. Value: 40.21 P < .0001			

The same trend of results is also reflected for writing words. From Table 61 it is found that 54.0% of students in ELP team managed school write the word correctly in comparison to 16.7 % of students in govt. teachers managed schools.

Table - 61

Write correct words through dictation (Class II students in End term assessment)			
Numbers	Correct Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	33 (26.2)	4 (3.2)	37 (29.4)
1	21 (16.7)	68 (54.0)	89 (70.6)
Percentages are given in Parenthesis			
Chi Sqr. Value: 45.92 , P < .0001			

Table - 62

Able to write sentences (Class II students in End term Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	15 (11.8)	50 (39.4)	65 (51.2)
NO	39 (30.7)	22 (17.3)	61 (48.0)
No Response	1 (0.8)	-----	1 (0.8)
Percentages are in Parenthesis			
Chi Sqr. Value: 22.71 P < .0001			

The ability of students to write a sentence is presented in Table 62. The result is also highly significant. It shows that 39.4% of students in ELP managed school able to write the dictated sentence correctly whereas it is only 11.8 % in case of schools managed by govt. teachers. The dictated sentence consists of 4 words. (बकरी ने घास खाया). The students omitted one to two words while writing the sentence. This shows that they are unable to integrate the meaningful words to construct a meaningful sentence and have not yet grasped the understanding of a sentences. The error pattern in writing words belonging to the sentence pertains to substitution and omission of letters in place of correct one (example बकरी, खया, in place of खाया). Such mistakes show that students are unable to form a meaningful relationship of words to construct a sentence. Such types of mistakes are very less in case of schools managed by ELP team.

Reading and Writing skills of Class - III Students

At par with class I & II, class III students were also assessed on reading and writing competencies during Baseline, Mid term and End term assessment. In Baseline assessment emphasis was given to constructing words from an alphasyllable chart. The students had to match the first letter given in the question paper to construct word on their own with the help of alphabet/syllable chosen from alphasyllable chart. They had to construct many words with the same beginning letter. Writing competencies were assessed through dictation of letter, word and sentence. In midterm assessment the students were asked to construct words as given in the base line assessment. In addition to this, they were given a task of reading comprehension i.e. answering questions after reading and understanding a set of related sentences followed by drawing pictures as per instruction given. Further individual loud reading and dictation were undertaken to assess reading and writing skills. In End term assessment the tasks were to read, classify and write a set of words under the correct categories. Reading comprehension task was given similar to the one given in the mid term assessment, followed by reading of sentences and dictation.

Reading Skills

Baseline Assessment

In the initial assessment, the skill pre-cursor to reading i.e. recognition of alphabets/syllables was also tested in class- III. Table -63 reveals that there is no significant difference between the two types of schools included in the project. Majority of students in both the groups are able to recognize the alphabets/syllabus barring a very few. But when the number of alphabets/syllabus were examined, it is observed from the Table-64 that majority of students (37.1%) in ELP team managed school were able to identify nine alphabets/syllables in comparison to 9.7 % of their counter parts. The detail analysis of alphabets / syllabus identified reveals that students who identify less than nine words in both type of schools were unable to identify letter with MATRA. But when reading combine letter and MATRA and pronouncing words there is no significant difference between these two group (Table -65) Students in both type of schools are equal in terms of basic reading skills.

Table - 63

Able to recognise syllables/alphabets (Class III students in Baseline Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	48 (38.7)	72 (58.1)	120 (96.8)
NO	3 (2.4)	1 (0.8)	4 (3.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 1.96 P > .05			

Table - 64

Number of syllables/alphabets recognised (Class III students in Baseline Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	4 (3.2)	---	4 (3.2)
1	1 (0.8)	2 (1.6)	3 (2.4)
2	4 (3.2)	3 (2.4)	7 (5.6)
3	9 (7.3)	----	9 (7.3)
4	5 (4.0)	4 (3.2)	9 (7.3)
5	8 (6.5)	5 (4.0)	13 (10.5)
6	7 (5.6)	7 (5.6)	14 (11.3)
7	2 (1.6)	---	2 (1.6)
8	1 (0.8)	4 (3.2)	5 (4.0)
9	12 (9.7)	46 (37.1)	58 (46.8)
Percentages are in Parenthesis			
Chi Sqr. Value: 36.16 P < .0001			

Table - 65

Able to read alphabets with Matra and words (Class III students in Baseline Assessment)						
Responses	Read alphabet with matra			Read words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	31 (24.6)	50 (39.7)	81 (64.3)	31 (24.6)	49 (38.9)	80 (63.5)
NO	22 (17.5)	23 (18.3)	45 (35.7)	22 (17.5)	24 (19.0)	46 (36.5)
Percentages are in Parenthesis						
Chi Sqr. Value: 1.34 P > .05				Chi Sqr. Value: 0.99 P > .05		

In the task of constructing meaningful words by matching letter from alphasyllable chart with the first letter given in the box, it is observed that both the groups do not differ significantly in terms of their word making capabilities (Table - 66). Even majority of students in both the groups do not construct a single meaningful word.

To what extent students were able to construct words on their own by combining nearest and distant letters from alphabet chart are examined and presented in Table- 67. In both the cases chi-square value is not significant. Majority of students in both type of schools are unable to construct a single

word. However, significant result is obtained in case of constructing meaningful words by repeating the same letter from alphabet chart (Table 68). In this students' performance of schools managed by ELP team perform better than students of schools managed by Govt. teachers. The words constructed by them are नाना, ताता, लाला, पीपी, However, constructing words by reversing letter are very less in both type of schools (Table - 69).

Table - 66

Construct Meaningful and Meaningless words by choosing letters from Alphasyllable Chart (Class III students in Baseline assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	35 (27.8)	41 (32.5)	76 (60.3)	43 (34.1)	54 (42.9)	97 (77.0)
1	5 (4.0)	4 (3.2)	9 (7.1)	6 (4.8)	10 (7.9)	16 (12.7)
2	6 (4.8)	6 (4.8)	12 (9.5)	2 (1.8)	4 (3.2)	6 (4.8)
3	2 (1.6)	5 (4.0)	7 (5.6)	----	3 (2.4)	3 (2.4)
4	2 (1.6)	7 (5.6)	9 (7.1)	2 (1.8)	1 (0.8)	3 (2.4)
5	3 (2.4)	10 (7.9)	13 (10.3)	-----	1 (0.8)	1 (0.8)
Percentages are given in Parenthesis						
Chi Sqr. Value: 5.38 , P > .05				Chi Sqr. Value: 4.17 , P > .05		

Table - 67

Construct meaningful words by choosing nearest and distant letters from Alphasyllable Chart (Class III students in Baseline assessment)						
Numbers	Choosing nearest letters			Choosing distant letters		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	40 (32.8)	39 (32.0)	79 (64.8)	45 (36.0)	62 (49.6)	107 (85.6)
1	3 (2.5)	4 (3.3)	7 (5.7)	5 (4.0)	7 (5.6)	12 (9.6)
2	4 (3.3)	11 (9.0)	15 (12.3)	1 (0.8)	2 (1.8)	3 (2.4)
3	4 (3.3)	7 (5.7)	11 (9.0)	----	2 (1.8)	2 (1.8)
4	2 (1.6)	7 (5.7)	9 (7.4)			
5	----	1 (0.8)	1 (0.8)	1 (0.8)	----	1 (0.8)
Percentages are given in Parenthesis						
Chi Sqr. Value: 6.02 , P > .05				Chi Sqr. Value: 2.92 , P > .05		

Table - 68

Construct meaningful and meaningless words by repeating letters from Alphasyllable Chart (Class III students in Baseline assessment)						
Numbers	Meaningful words			Meaningless words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	42 (33.3)	32 (25.4)	74 (58.7)	51 (41.5)	69 (56.1)	120 (97.6)
1	6 (4.8)	17 (13.5)	23 (18.3)	---	---	---
2	4 (3.2)	23 (18.3)	27 (21.4)	1 (0.8)	---	1 (0.8)
3	1 (0.8)	1 (0.8)	2 (1.6)	1 (0.8)	1 (0.8)	2 (1.8)
Percentages are given in Parenthesis						
Chi Sq. Value: 17.24, P <.001				Chi Sq. Value: 1.38, P >.05		

Table - 69

Construct meaningful and meaningless words by reversing letters from Alphasyllable Chart (Class III students in Baseline assessment)						
Numbers	Meaningful words			Meaningless words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	48 (38.1)	71 (56.3)	119 (94.4)	50 (39.7)	73 (57.9)	123 (97.6)
1	4 (3.2)	2 (1.6)	6 (4.8)	---	---	---
2	---	---	---	2 (1.8)	---	2 (1.8)
3	1 (0.8)	---	1 (0.8)	1 (0.8)	---	1 (0.8)
Percentages are given in Parenthesis						
Chi Sq. Value: 3.01, P > .05				Chi Sq. Value: 4.23, P > .05		

Further attempt was made to count the number of words made by students besides the words constructed according to the questions. Table - 70, shows that there is no significant difference between the two groups. All the words constructed by students are two letters words and students of both type of schools are able to construct up to nine words.

Table - 70

Construct meaningful and meaningless words on their own (Class III students in Baseline assessment)						
Numbers	Meaningful words			Meaningless words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	33 (27.3)	39 (32.2)	72 (59.5)	45 (35.7)	49 (38.9)	94 (74.6)
1	3 (2.5)	1 (0.8)	4 (3.3)	4 (3.2)	9 (7.1)	13 (10.3)
2	6 (5.0)	6 (5.0)	12 (9.9)	2 (1.6)	9 (7.1)	11 (8.7)
3	1 (0.8)	7 (5.8)	8 (6.6)	----	4 (3.2)	4 (3.2)
4	1 (0.8)	7 (5.8)	8 (6.6)	1 (0.8)	1 (0.8)	2 (1.6)
5	2 (1.7)	3 (2.5)	5 (4.1)	1 (0.8)	---	1 (0.8)
6	1 (0.8)	3 (2.5)	4 (3.3)	---	---	---
7	----	2 (1.7)	2 (1.7)	---	1 (0.8)	1 (0.8)
8	----	2 (1.7)	2 (1.7)	---	---	---
9	1 (0.8)	3 (2.5)	4 (3.3)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 12.05 , P > .05				Chi Sqr. Value: 9.61 , P > .05		

In another task where students have to construct words with the same first letter, it is found from the Table 71 that students of both the groups are able to form all the tow words. However, there is no significant difference between the two groups. In this task the number of words constructed without same first letter were also explored in qualitative analysis. It is observed from Table 72, that students of both the groups do not differ significantly. Few students in both the groups constructed up to two meaningful words.

Table - 71

Construct meaningful words by identifying the first letter of the word (Class III students in Baseline assessment)						
Numbers	Meaningful words			Meaningless words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	28 (22.4)	34 (27.2)	62 (49.6)	51 (40.5)	53 (42.1)	104 (82.5)
1	10 (8.0)	11 (8.8)	21 (16.8)	2 (1.6)	12 (9.5)	14 (11.1)
2	14 (11.2)	28 (22.4)	42 (33.6)		8 (6.3)	8 (6.3)
Percentages are given in Parenthesis						
Chi Sqr. Value: 1.82 , P > .05				Chi Sqr. Value: 12.32 , P < .01		

Table - 72

Construct meaningful words by using other than given letter (Class III students in Baseline assessment)						
Numbers	Meaningful words			Meaningless words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	49 (38.9)	64 (50.8)	113 (89.7)	51 (40.5)	70 (55.6)	121 (96.0)
1	3 (2.4)	4 (3.2)	7 (5.6)	2 (1.6)	----	2 (1.6)
2	1 (0.8)	5 (4.0)	6 (4.8)	----	3 (2.4)	3 (2.4)
Percentages are given in Parenthesis						
Chi Sqr. Value: 1.67 , P > .05				Chi Sqr. Value: 4.93 , P >.05		

Total number of words constructed by students in Hindi and Marwari are presented in Table - 73. Though students were able to construct ten Hindi words and three Marwari words but the percentage are very less and the result is also not significant.

Table - 73

Construct Hindi and Marwadi words (Class III students in Baseline assessment)						
Numbers	Hindi words			Marwari words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	26 (20.6)	29 (23.0)	55 (43.7)	44 (34.9)	50 (39.7)	94 (74.6)
1	2 (1.6)	1 (0.8)	3 (2.4)	5 (4.0)	15 (11.9)	20 (15.9)
2	11 (8.7)	7 (5.6)	18 (14.3)	4 (3.2)	7 (5.6)	11 (8.7)
3	4 (3.2)	7 (5.6)	11 (8.7)	----	1 (0.8)	1 (0.8)
4	4 (3.2)	8 (6.3)	12 (9.5)	---	---	---
5	4 (3.2)	7 (5.6)	11 (8.7)	---	---	---
6	----	6 (4.8)	6 (4.8)	---	---	---
7	1 (0.8)	3 (2.4)	4 (3.2)	---	---	---
8	1 (0.8)	3 (2.4)	4 (3.2)	---	---	---
10		1 (0.8)	1 (0.8)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 11.47 , P > .05				Chi Sqr. Value: 4.13 , P > .05		

In drawing picture to show word meaning, though few students in ELP team managed school draw pictures of more than two words but the result is also not significant (Table 74).

Table - 74

Draw pictures to show word meaning (Class III students in Baseline Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	40 (35.7)	42 (37.5)	82 (73.2)
1	9 (8.0)	6 (5.4)	15 (13.4)
2	3 (2.7)	4 (3.6)	7 (6.3)
3	---	3 (2.7)	3 (2.7)
4	---	2 (1.8)	2 (1.8)
5	----	2 (1.8)	2 (1.8)
6	----	1 (0.9)	1 (0.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 8.26 P > .05			

In quantitative analysis the significant difference between these two groups was obtained in Baseline assessment. But a detail qualitative analysis of scores shows that barring few cases, there is no significant difference between the two groups. Basically when we take samples for same type of environment for experimental treatment and making groups, they should not differ in terms of criterion measures on which the intervention will be planned. Further, in quantitative analysis some skills are added to the total score and compared for significant difference. So one skill with high score may affect the total score which will appear as a significant difference. In qualitative analysis it is very clearly proved that both the groups are at par (except in few dimension) so far as reading and writing skills are concerned.

Mid Term Assessment

After four month of treatment in reading and writing skills the mid term assessment was conducted and the performance of students on reading skills are presented sequentially.

Like the Baseline assessment, the first task was to construct word by matching letter from alphasyllable chart with first letter given in the question box. Table- 75 represents the performance of students on this task. The higher significant result derived from analysis proved that the students of ELP team managed school performed better than the students of Govt. teacher managed school. Around

37% of student streated by ELP approach construct all the five words by selecting letter from alphabet chart whereas it is only 5.7 % of students in case of schools managed by Govt. teachers. The meaningless words presented in Table -76 shows a significant difference and the numbers are more in case of schools managed by Govt. teachers. The error pattern do not show any specific trend, however it clearly indicates that the students did not established sound symbol relationship to form meaning full words (example of meaningless words are सागा, हाय, मेकल, यती)

Table - 75

Construct meaningful words by choosing correct letters/alphabets from alphabet chart (Class III students in Mid Term Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	4 (3.3)	6 (4.9)	10 (8.2)
1	3 (2.5)	4 (3.3)	7 (5.7)
2	9 (7.4)	1 (0.8)	10 (8.2)
3	14 (11.5)	2 (1.6)	16 (13.1)
4	17 (13.9)	10 (8.2)	27 (22.1)
5	7 (5.7)	45 (36.9)	52 (42.6)
Percentages are in Parenthesis			
Chi Sqr. Value: 44.51 P < .0001			

Table - 76

Construct meanigless words by choosing letters/alphabets from alphabet chart (Class III students in Mid Term Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	17 (13.9)	51 (41.8)	68 (55.7)
1	15 (12.3)	10 (8.2)	25 (20.5)
2	16 (13.1)	2 (1.6)	18 (14.8)
3	5 (4.1)	2 (1.6)	7 (5.7)
4	----	3 (2.5)	3 (2.5)
5	1 (0.8)	---	1 (0.8)
Percentages are in Parenthesis			
Chi Sqr. Value: 33.00 P < .0001			

In further analysis the different way of constructing words are explored and presented below. Constructing meaningful words by selecting adjoining letters from the alphasyllable chart in presented in Table - 77, which shows a significant result. In this case majority of students in ELP team constructed schools formulated two to three meaningful words by selecting adjoining letters from the alphasyllable chart.

Table - 77

Construct Meaningful and Meaningless words by selecting nearest letters from Alphasyllable Chart (Class III students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	15 (12.3)	8 (6.6)	23 (18.9)	49 (40.2)	68 (55.7)	117 (95.9)
1	15 (12.3)	11 (9.0)	26 (21.3)	5 (4.1)	----	5 (4.1)
2	10 (8.2)	20 (16.4)	30 (24.6)	---	---	---
3	9 (7.4)	28 (23.0)	37 (30.3)	---	---	---
4	5 (4.1)	1 (0.8)	6 (4.9)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 17.12 , P < .01				Chi Sqr. Value: 6.56, P < .01		

Table - 78

Construct Meaningful and Meaningless words by selecting distance letters from Alphasyllable Chart (Class III students in Mid term assessment)						
Numbers	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	9 (7.4)	10 (8.2)	19 (15.6)	44 (36.4)	67 (55.4)	111 (91.7)
1	21 (17.2)	3 (2.5)	24 (19.7)	7 (5.8)	1 (0.8)	8 (6.6)
2	13 (10.7)	33 (27.0)	46 (37.7)	2 (1.7)	---	2 (1.7)
3	9 (7.4)	18 (14.8)	27 (22.1)	---	---	---
4	2 (1.6)	4 (3.3)	6 (4.9)	---	---	---
Percentages are given in Parenthesis						
Chi Sqr. Value: 24.63 , P < .0001				Chi Sqr. Value: 9.55, P < .01		

In case of using distant letters the same trend of result appears (Table - 78). The words constructed are across the cell like: (गाय, चक, मेटे, चका etc.). This shows the development of meaningful vocabulary of written words of students through the intervention and the ability to combine alphabets to retrieve the meaning. Constructing words by repeating the same letter (Table 79) the chi-square value is significant at .01 %. In this case more number of students in Govt. teacher managed school repeat the same alphabet to form the words (नाना, कीली,) up to two words only. But combining words by reversing letters form alphabet chart (Table 80), students of ELP team managed school perform better than their counter parts in govt. teacher managed school. Choosing the distance letters across the cell and reversing letter, as ways of constructing words depends on understanding of the meaning of words clearly. Even significant number of students in ELP team managed school are able to construct up to three meaningful words in comparison to students of Govt. teacher managed school (Example of words : मैना, मेय, लाली, नाय, यमेली etc.)

Table - 79

Construct Meaningful and Meaningless words by repeating letters from Alphasyllable Chart (Class III students in Mid term assessment)			
Numbers	Meaningful Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	37 (30.6)	63 (52.1)	100 (82.6)
1	13 (10.7)	5 (4.1)	18 (14.9)
2	3 (2.5)	----	3 (2.5)
Percentages are given in Parenthesis			
Chi Sqr. Value: 11.63 , P < .01			

Table - 80

Construct words by reversing letters from alphasyllable chart (class III students in Mid term assessment)						
Number	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	28 (23.0)	12 (9.8)	40 (32.8)	48 (40.0)	61 (50.8)	109 (90.8)
1	19 (15.6)	28 (23.0)	47 (38.5)	3 (2.5)	6 (5.0)	9 (7.5)
2	7 (5.7)	20 (16.4)	27 (22.1)	1 (0.8)	1 (0.8)	2 (1.6)
3	----	8 (6.6)	8 (6.6)	----	----	----
Percentages are given in Parenthesis						
Chi Sqr. Value: 21.05 P < .001				Chi Sqr. Value: 0.42 P > .05		

Students were also asked to construct words on their own by selecting/combining letters from the given alphasyllable chart. Table - 81 represents the performance of students on this task with a highly significant result. Majority of students in the ELP team managed schools construct all the five words in comparison to their counter parts of Govt. teacher managed school. In both type of schools students are able to construct two letter words with the given letters but in few cases of schools managed by ELP team students construct words with three letters (ex. चकला, चलन).

Table - 81

Construct words by selecting letters from alphabet chart on their own (class III students in Mid term assessment)						
Numbe	Meaningful Words			Meaningless Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	14 (11.5)	1 (0.8)	15 (12.3)	26 (21.3)	53 (43.4)	79 (64.8)
1	12 (9.8)	----	12 (9.8)	14 (11.5)	13 (10.7)	27 (22.1)
2	11 (9.0)	2 (1.6)	13 (10.7)	7 (5.7)	2 (1.6)	9 (7.4)
3	8 (6.6)	6 (4.9)	14 (11.5)	4 (3.3)	---	4 (3.3)
4	8 (6.6)	20 (16.4)	28 (23.0)	3 (2.5)	---	3 (2.5)
5	1 (0.8)	39 (32.0)	40 (32.8)			
Percentages are given in Parenthesis						
Chi Sqr. Value: 70.35 , P < .0001				Chi Sqr. Value: 917.67, P < .001		

Table 82 includes all the words constructed by the students in Hindi as well as in Marwari. The result is highly significant. In formulating Hindi and Marwari words students of ELP team managed school perform better than students of schools managed by Govt. teachers. Majority of students in these school constructed 5 to 8 words in Hindi and 1 to 3 words in Marwari in comparison to the students of schools managed by Govt. teachers.

Table - 82

Total number of words constructed in response to question 1 (class III students in Mid term assessment)						
Number	Hindi Words			Marwari Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	3 (2.5)	1 (0.8)	4 (3.3)	23 (18.9)	6 (4.9)	29 (23.8)
1	5 (4.1)	---	5 (4.1)	25 (20.5)	24 (19.7)	49 (40.2)
2	4 (3.3)	3 (2.5)	7 (5.7)	3 (2.5)	26 (21.3)	29 (23.8)
3	9 (7.4)	5 (4.1)	14 (11.5)	2 (1.6)	10 (8.2)	12 (9.8)
4	14 (11.5)	8 (6.6)	22 (18.0)	1 (0.8)	2 (1.6)	3 (2.5)
5	7 (5.7)	11 (9.0)	18 (14.8)	----	----	----
6	8 (6.6)	15 (12.3)	23 (18.9)	----	----	----
7	3 (2.5)	13 (10.7)	16 (13.1)	----	----	----
8	1 (0.8)	12 (9.8)	13 (10.7)	----	----	----
Percentages are given in Parenthesis						
Chi Sqr. Value: 26.23, P < .001				Chi Sqr. Value: 32.72 P < .0001		

The understanding of meaning is more reliable when students are able to draw the picture of that word. In this task (Table 83) 17.2 % of students in ELP team managed school are able to draw picture of all the five words in comparison to 2.5 % of their counter parts in schools managed by Govt. teachers. Even 29.5% of student sin Govt. teacher managed school could not draw the picture of a single word. This shows the better reading comprhension ability in favour of students treated by ELP approach.

Table - 83

Draw pictures of construct words to show word meaning (Class III students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	36 (29.5)	11 (9.0)	47 (38.5)
1	9 (7.4)	14 (11.5)	23 (18.9)
2	4 (3.3)	9 (7.4)	13 (10.7)
3	1 (0.8)	8 (6.6)	9 (7.4)
4	1 (0.8)	5 (4.1)	6 (4.9)
5	3 (2.5)	21 (17.2)	24 (19.7)
Percentages are given in Parenthesis			
Chi Sqr. Value: 36.79 , P < .0001			

In addition to it, students were provided five sentences to read, understand and draw the picture as per instruction. (for example ऊपर, एक छोटा हाट बनाओं). Table 84 represent the performance of students on this task. Highly significant result reveals that majority of students (38.5 %) of schools managed by ELP team are able to draw picture of all the five question, where as it is only 9.8 % in case of schools managed by Govt. teachers. From Table - 85 it is found that 8.1 % of students in Govt. teacher managed school did not follow the instruction to draw picture. It mean the students are poor in understanding the meaning by reading the given sentences in which instruction is written.

Table - 84

Follow instruction to Draw pictures (Class III students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	12 (9.8)	2 (1.6)	14 (11.5)
1	2 (1.6)	---	2 (1.6)
2	5 (4.1)	4 (3.3)	9 (7.4)
3	6 (4.9)	4 (3.3)	10 (8.2)
4	17 (13.9)	11 (9.0)	28 (23.0)
5	12 (9.8)	47 (38.5)	59 (48.4)
Percentages are given in Parenthesis			
Chi Sqr. Value: 30.49 , P < .0001			

Table - 85

Do not follow the instruction and draw pictures on their own (class III students in Midterm Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	22 (18.0)	1 (0.8)	23 (18.9)
NO	7 (5.7)	4 (3.3)	11 (9.0)
No Response	25 (20.5)	63 (51.6)	88 (72.1)
Percentages are in Parenthesis			
Chi Sqr. Value: 35.26 P < .0001			

The way students read the sentence is presented in Table - 86. To what extent students were reading the sentences fluently were examined in this task. The result is highly significant. It shows that more number of students in ELP team managed school able to read 3 to 5 sentence fluently. In govt. teacher managed school 33.6% of students could not read a single sentence fluently in comparison to 18.9% of their counter parts in schools managed by ELP team.

Table - 86

Number of sentences read correctly as a sentence (Class III students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	41 (33.6)	23 (18.9)	64 (52.5)
1	1 (0.8)	5 (4.1)	6 (4.9)
2	2 (1.6)	4 (3.3)	6 (4.9)
3	----	7 (5.7)	7 (5.7)
4	----	10 (8.2)	10 (8.2)
5	10 (8.2)	19 (15.6)	29 (23.8)
Percentages are given in Parenthesis			
Chi Sqr. Value: 26.94 , P < .0001			

Regarding reading comprehension, the students of class III were asked to read, classify the 10 words and write them under the categories i.e. food item, vehicle and name of the animal. There are 4 words related to food item, 3 words each to vehicle and name of the animals. Table 87 shows highly significant result and students of ELP team managed schools perform better than students of Govt.

teacher managed school. More number of students in schools managed by ELP team were able to classify and write correctly all the words in respected categories in comparison to their counterparts in Govt. teacher managed school.

Table - 87

Classify the words correctly and write in the appropriate column (Class III students in End term assessment)									
Numbers	Food Items			Vehicles			Animals		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	6 (5.1)	2 (1.7)	8 (6.8)	20 (17.1)	4 (3.4)	24 (20.5)	20 (17.1)	2 (1.7)	22 (18.8)
1	4 (3.4)	----	4 (3.4)	3 (2.6)	----	3 (2.6)	3 (2.6)	1 (0.9)	4 (3.4)
2	9 (7.7)	2 (1.7)	11 (9.4)	8 (6.8)	5 (4.3)	13 (11.1)	10 (8.5)	6 (5.1)	16 (13.7)
3	10 (8.5)	10 (8.5)	20 (17.1)	18 (15.4)	59 (50.4)	77 (65.8)	16 (13.7)	59 (50.4)	75 (64.1)
4	20 (17.1)	54 (46.2)	74 (63.2)	----	----	----	---	----	----
Percentages are given in Parenthesis									
Chi Sqr. Value: 23.61 , P < .0001				Chi Sqr. Value: 34.001 , P < .0001			Chi Sqr. Value: 39.33 , P < .0001		

From table 88 it is observed that more students in Govt. teacher managed school write the word correctly but not under the specified categories in comparison to students of ELP team managed schools. It means they could not understand the meaning of the words as a result they were unable to classify them into categories.

Table - 88

Write words correctly but in the inappropriate column (Class III students in End term assessment)									
Numbers	Food Items			Vehicles			Animals		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	25 (21.9)	62 (54.4)	87 (76.3)	38 (32.5)	64 (54.7)	102 (87.2)	38 (33.0)	64 (55.7)	102 (88.7)
1	9 (7.9)	3 (2.6)	12 (10.5)	9 (7.7)	3 (2.6)	12 (10.3)	7 (6.1)	3 (2.6)	10 (8.7)
2	4 (3.5)	2 (1.8)	6 (5.3)	1 (0.9)	----	1 (0.9)	2 (1.7)	---	2 (1.7)
3	---	---	---	1 (0.9)	1 (0.9)	2 (1.7)	1 (0.9)	---	1 (0.9)
4	2 (1.8)	1 (0.9)	3 (2.6)	----	----	----	---	----	----
5	4 (3.5)	---	4 (3.5)						
6	1 (0.9)	---	1 (0.9)						
8	1 (0.9)	---	1 (0.9)						
Percentages are given in Parenthesis									
Chi Sqr. Value: 22.32 , P < .001				Chi Sqr. Value: 7.75 , P < .05			Chi Sqr. Value: 8.31 , P < .05		

In another task, students were given four sentences to read and understand. Then they were given five questions to answer on the basis of provided sentences. Table 89 includes the performance of students on these five question. The results is highly significant and in favour of performance of students in ELP team managed schools. In this school 33.3% and 13.7% of students correctly answered all the five and four questions respectively, whereas it is only 3.4% and 2.6% in case of schools managed by Govt. Teachers.

Table - 89

Number of questions answered correctly (Class III students in End Term Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	30 (25.6)	4 (3.4)	34 (29.1)
1	10 (8.5)	2 (1.7)	12 (10.3)
2	1 (0.9)	3 (2.6)	4 (3.4)
3	1 (0.9)	4 (3.4)	5 (4.3)
4	3 (2.6)	16 (13.7)	19 (16.2)
5	4 (3.4)	39 (33.3)	43 (36.8)
Percentages are in Parenthesis			
Chi Sqr. Value: 64.00 P < .0001			

In subsequent task of reading comprehension, students have to draw four pictures of words as per written instruction provided by the evaluation team members. In Table 90, it is described that 29.1% and 23.1% students treated by ELP approach are able to draw three and four pictures respectively in comparison to 1.7% and 3.4% if their counter parts in schools managed by govt. teachers. Many students in these schools (17.9%) are able to draw pictures of two words (आम, नीम का पेड़).

Table - 90

Draw picture correctly as per instruction (Class III students in End Term Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	15 (12.8)	1 (0.9)	16 (13.7)
1	7 (6.0)	----	7 (6.0)
2	21 (17.9)	6 (5.1)	27 (23.1)
3	2 (1.7)	34 (29.1)	36 (30.8)
4	4 (3.4)	27 (23.1)	31 (26.5)
Percentages are in Parenthesis			
Chi Sqr. Value: 71.90 P < .0001			

In individual reading five sentences were given to the students to read. These sentences contain seven to nine words. The performance of students is presented in Table 91, with a highly significant result. It is found from the result that 32.5% of students in ELP team managed schools are able to read all the five sentences in comparison to only 3.4% of students in Govt. Teacher managed schools. Higher percentage of students (25.6%) in Govt. teacher managed schools could not read a single sentence in comparison to 12.8% of students in ELP team managed school. It shows that though few students are

unable to read a sentence in schools treated with ELP approach, still then they have improved their reading skills in comparison to their counter parts in Govt. teachers managed school.

Table - 91

Read fluently the given sentences (Class III students in End Term Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	30 (25.6)	15 (12.8)	45 (38.5)
1	---	11 (9.4)	11 (9.4)
2	13 (11.1)	4 (3.4)	17 (14.5)
3	1 (0.9)	---	1 (0.9)
4	1 (0.9)		1 (0.9)
5	4 (3.4)	38 (32.5)	42 (35.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 48.48 P < .0001			

In the present evaluation study each class (I II III) is treated for one year through ELP approach in four schools and in other four schools form the same local area conventional approach is implemented. In three phases of assessment, students of school treated by ELP approach improved their performance on literacy skills in comparison to their peers in Govt. teacher managed school. Such trend of result prove that if the same cohort would have been treated from class I, then in class III their performance could have been much better than the present observation.

Writing Skills

To test the writing skills of class III students the same patterns of dictation was given as class I and II, but vary in terms of difficulty. In Baseline assessment letters and words are dictated. A sentence was added to it in both Midterm and End term assessment. Numbers of letters written by both groups of students are presented in Table 92. The result is significant at .05 level and 17.5% of students in ELP team managed school are able to write all the nine letters in comparison to 4.8% of student sin Govt. teacher managed school. However, the percentage of students varied widely in writing numbers of words in both types of group.

Table - 92

Able to write number of dictated syllables/alphabets (Class III students in Baseline Assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	1 (0.8)	2 (1.6)	3 (2.4)
1	2 (1.6)	2 (1.6)	4 (3.2)
2	3 (2.4)	---	3 (2.4)
3	3 (2.4)	3 (2.4)	6 (4.8)
4	8 (6.5)	2 (1.6)	10 (7.9)
5	5 (4.0)	9 (7.1)	14 (11.1)
6	14 (11.1)	12 (9.5)	26 (20.6)
7	6 (4.8)	15 (11.9)	21 (16.7)
8	5 (4.0)	6 (4.8)	11 (8.7)
9	6 (4.8)	22 (17.5)	28 (22.2)
Percentages are in Parenthesis			
Chi Sqr. Value: 18.61 P < .05			

Further, the performance of students in writing dictated alphabets with MATRA is presented in Table 93, which shows an insignificant result. It shows that both the groups do not differ in terms of writing alphabets with MATRA. From Table 94, it is observed that there is a significant difference between both the groups in writing the word correctly. Though 41.3% of students in ELP team managed schools write the word (काका) correctly in comparison to 21.4% of students in Govt. teacher managed school, but many students in both the groups are also unable to write that word.

Table - 93

Able to write dictated alphabets with Matra (Class III students in Baseline Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	34 (27.2)	51 (40.8)	85 (68.0)
NO	19 (15.2)	21 (16.8)	40 (32.0)
Percentages are in Parenthesis			
Chi Sqr. Value: 2.36 P > .05			

Table - 94

Able to write dictated words (Class III students in Baseline Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	27 (21.4)	52 (41.3)	79 (62.7)
NO	26 (20.6)	21 (16.7)	47 (37.3)
Percentages are in Parenthesis			
Chi Sqr. Value: 5.40 P < .05			

In Midterm assessment the writing of dictated alphabet and syllables improve significantly in case of students in schools managed by ELP team. From Table 95, it is observed that 42% of students in these schools write all the four alphabets correctly in comparison to 17.2% of students in Govt. teacher managed schools. After five months of teaching literacy skills, even 10.7% of students in Govt. teachers managed schools could not write a single alphabet. The students of these schools find difficulty in writing alphabet 'ह' invariably. In schools managed by ELP team non specific error pattern is emerged. The errors committed in writing letter reveal that the students substituted the letter (like ग substituted with घ), write other letter like (न, क, म) and also added MATRA to the letter like (हा, सा, गा). Such type of mistakes was committed by students in both types of schools, though percentage is more in case of school managed by Govt. teacher. This shows that students did not develop sound symbol relationship.

Table - 95

Write detected alphabets/letters (Class III students in Mid term assessment)			
Numbers	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	13 (10.7)	2 (1.6)	15 (12.3)
1	2 (1.6)	3 (2.5)	5 (4.1)
2	6 (4.9)	2 (1.6)	8 (6.6)
3	12 (9.8)	9 (7.4)	21 (17.2)
4	21 (17.2)	52 (42.6)	73 (59.8)
Percentages are given in Parenthesis			
Chi Sqr. Value: 22.55 , P < .0001			

In writing word, Table 96 presents a highly significant result. The performance of students in ELP team managed school is significantly better than the students of Govt. teacher managed school. The

same trend of result is also visible in case of writing the sentence correctly (Tale 97). The sentence contains five words (सीता का बेटा हार गया). The mistakes committed by students reveal that in Govt. teacher managed school they missed words like (बेटा हार गया), but in other group students used the MATRA wrongly like (सीता, बेटा). [It means that these students have phonemic awareness to some extent but could not use MATRA for writing a meaningful word.]

Table - 96

Write the dictated words (class III students in Midterm Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	26 (21.3)	63 (51.6)	89 (73.0)
NO	24 (19.7)	4 (3.3)	28 (23.0)
No Response	4 (3.3)	1 (0.8)	5 (4.1)
Percentages are in Parenthesis			
Chi Sqr. Value: 30.26 P < .0001			

Table - 97

Write the dictated sentences (class III students in Midterm Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	15 (12.3)	57 (46.7)	72 (59.0)
NO	29 (23.8)	10 (8.2)	39 (32.0)
No Response	10 (8.2)	1 (0.8)	11 (9.0)
Percentages are in Parenthesis			
Chi Sqr. Value: 40.04 P < .0001			

In End term assessment the questions asked for testing writing skills is more difficult in terms of using MATRA. Table 98 represents the performance of students in writing alphabets and syllables separately. In both the cases the result is highly significant and students of ELP team managed schools perform better than their peers in Govt. teacher managed school. Even at the end of session 11.3% and 10.3% of students of Govt. teacher managed school unable to write alphabets and syllables respectively.

Table - 98

Write correct alphabet and syllables in dictation (Class III students in End term assessment)						
Numbers	Alphabet			Syllables		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	13 (11.3)	3 (2.6)	16 (13.9)	12 (10.3)	2 (1.7)	14 (12.0)
1	1 (0.9)	5 (4.3)	6 (5.2)	5 (4.3)	2 (1.7)	7 (6.0)
2	34 (29.6)	59 (51.3)	93 (80.9)	32 (27.4)	64 (54.7)	96 (82.1)
Percentages are given in Parenthesis						
Chi Sqr. Value: 12.85 , P < .01				Chi Sqr. Value: 16.44 , P < .0001		

Regarding dictation of two words (धोया, छाले) in End term assessment, Table 99 shows a significant difference between the two groups. Higher percentage (38.8) of students in ELP team managed school write these two words correctly in comparison to 4.3% of students in Govt. teacher managed school. However, 8.6% of students in ELP team managed schools and 23.3% of students in Govt. teacher managed school could not write a single word. The errors committed in writing words shows that students of Govt. teacher managed school replace ग for घ. It shows lack of understanding in sound and symbol integration when words were repeated two times during the dictation by evaluation team member.

Table - 99

Write correct words in dictation (Class III students in End term assessment)			
Numbers	Correct Words		
	Students managed by Govt. Teachers	Students managed by ELP Team	Total
0	27 (23.3)	10 (8.6)	37 (31.9)
1	16 (13.8)	13 (11.2)	29 (25.0)
2	5 (4.3)	45 (38.8)	50 (43.1)
Percentages are given in Parenthesis			
Chi Sqr. Value: 37.79 , P < .0001			

Table - 100

Able to write the dictated sentences (Class III students in End Term Assessment)			
Responses	Students managed by Govt. Teachers	Students managed by ELP Team	Total
YES	15 (12.8)	42 (35.9)	57 (48.7)
NO	33 (28.2)	26 (22.2)	59 (50.4)
No Response	1 (0.9)	----	1 (0.9)
Percentages are in Parenthesis			
Chi Sqr. Value: 11.85 P < .01			

In writing the sentence, which contain four words (चेतन भागकर थक गया), Table 100 shows a highly significant result. It is found that 35.9% of students in ELP team managed school are able to write the whole sentence correctly in comparison to 12.8% of students in Govt. teacher managed school. The 'no' answer included not writing a single word of the sentence and write few words correctly but not the whole sentence. The detail analysis reveals that more students in Govt. teacher managed school could not write a single word of the sentence than their peers in ELP team managed school. Some students in Govt. teacher managed school were able to write one to two words correctly: example (चेतन, थक) चेतन गया, चेतन थक, चेतन भागकर) but could not make a meaningful sentence. The same types of mistakes are also found in case of students in ELP team managed school but comparatively less. The observation of performance in writing skills from Baseline to End term assessment proves that ELP approach is effective in developing literacy skills in comparison to conventional approach presently used in primary school system.

Feedback from Stakeholders

Sustainability of any project/scheme or developmental plan depends on the 'Gestalt' information it provides to policymakers and implementers. First, its effectiveness should be reflected on the change or improvement visible in case of the target group. It should be substantiated with the clarity in processes which bring such improvement and change. Secondly, it should highlight the factors which facilitate or restrict the effective implementation of the project in the field. In this context the roles of stakeholders like teachers, education officer and parents are very important. To extend the implementation of the intervention their knowledge about what, why and how of the project is necessary.

In this evaluation study of ELP project, keeping in mind the 'Gestalt' aspect the immediate stakeholders related to the project implementation were interviewed in addition to examining the effectiveness of ELP methodologies on class I, II & III Children (target group). The interview schedule that was used contains eight to nine questions related to what, why and how aspects of the ELP project. Different interview schedules were prepared for teachers, education officers and parents. All together eleven teachers, five education offices and two parents were interviewed at the end of the evaluation study.

The ELP approach is based on the basic principles of children's learning at the early stage of reading and writing. The process underlying the approach has already been described in the beginning of the report. It is presumed that the teacher at primary level must know the processes used in teaching reading and writing at the early stages. Such knowledge definitely helps the teachers to grasp the processes underlying ELP approach. The intelligibility (what) and plausibility (why) aspect of ELP project were examined through beginning four questions (Q.no 3 to 6). These throw light on teacher's knowledge about the strategies of teaching reading and writing at the early stage; the difficulties of students in reading with understanding and the difficulties encountered by teachers and students while teaching and learning reading, writing. The feasibility (how) aspect is covered through asking questions on their experiences about ELP approach where they were involved; the performance of students during the ELP implementation; the difficulties confronted by students and their suggestions for the improvement in the ELP approach in future (Q.No. 7 to 11)

The question no. 3 sought answers about knowledge of effective strategies to teach young children at an early stage. Generally at this stage the affective domain requires greater attention than the cognitive skills. It means culturing affective domain so that we can gain access to the cognitive domain. In the case

of any classroom task, successful experiences, recognition of task completion and channelizing incorrect completion to correct completion, are all aspects that increase motivation and boost the children to take interest in the task. Such type of focuses is inbuilt in ELP approach which aims to motivate the children towards reading and writing.

From the interview answers, it is found that not a single teacher expresses the teaching strategies clearly or highlights the processes underlying strategies, which is essential for bringing effectiveness in classroom learning. Only two teachers out of eleven highlight the importance of play way method at an early stage. Few teachers (two) explain about the short attention span of children but could not suggest any programme to accommodate short attention span of students in task management. Some teachers (4) highlight the use of poem, story, flash card, rhyming words, Barakhadi chart in teaching young children.

When teachers were asked to suggest the reasons for the difficulties faced by the children in reading with meaning, their answers were specifically focused on many peripheral factors. It means the teachers' answers indicated that they are unable to teach effectively because the children are not interested, parents are illiterate and not taking interest at home, rote methods are used in the classroom and students are not coming to the school regularly. The central factors like task management at early stage, integrated approach in teaching reading and writing, phonic knowledge, sound symbol relation etc. did not find a place in their answer.

The answers to question on difficulties encountered by children in reading and writing at early stages; multi-grade teaching, lack of attention by parents at home, students irregularity in attending classes and lack of interest by children have appeared as the prominent factors invariably. Two teachers highlighted that children were coming to the school with their younger brother and sisters, so they are not able to take interest in the classroom activities. One teacher explained about the difference in language at home and school. Another teacher also focused on lack of teaching-learning materials in school. Teaching through rote method was also highlighted by two teachers.

Regarding difficulties encountered by teacher in teaching reading with understanding, all the teachers focused on less number of teachers in the school and they are spending more time in other non-teaching activities than teaching activities. Other causes include students' irregularity in attending the class and discontinuing from school.

The causes explained by teachers, no doubt, affect the classroom teaching learning and less number of teachers in the schools is a serious concern. However, central to classroom teaching-learning is the teachers' knowledge and practice on effective strategies. The clarity in such teaching-learning principles could have helped the teachers to understand the 'what' and 'why' aspects of the ELP approach and its future implementation in primary classroom for teaching reading and writing.

Regarding the 'how' aspects of ELP approach, teachers were asked to put down their experiences on ELP activities implemented for teaching reading and writing in beginning classes (Class I, II & III). All the teachers appreciate the effectiveness of the ELP approach in teaching reading and writing for the early stages. In addition to this, they mentioned the appropriateness of classroom activities designed to learn alphabet/syllables, construct meaningful words and understanding the meaning of words and sentences. Further, they also highlighted that students are taking lot of interest in participating classroom activities which is very clear from their statement given below.

“मजा आता है। बच्चे रूची लेते है। कविताएँ, गीत काड़ों से बच्चों को आन्नद आता है। बहुत अच्छी विधा है। आस-पास के वातावरण के षब्द बना कर पढ़ाते है, जैसे क से कोचर ,केलड़ी आदि। बच्चे फिर चित्र बनाते हैं इनके। बच्चे जल्दी पकड़ करते है।“

The quality of learning regarding identification of alphabets/syllables, constructing meaningful words on their own, using MATRAS and reading comprehension skills have improved significantly in comparison to the conventional approach usually applied in the present classroom situation. The contents of the material designed for teaching reading and writing in terms of a resource pack are also appreciated by all teachers. Eventually, the teachers believe these methods lead to the improvement in achievement, even up to 70% as highlighted by one teacher. They have also felt the change in parents' involvement in schooling process. See Example:

अभिभावकों में बदलाव देखा। अभिभावकों पहले विद्यालय में आते नहीं थे। अब वो खुद छोड़ने आने लगे है। उनको लगता है के उनके बच्चे पढ़ना लिखना सिख रहे है। यह बात वो कहते भी हैं कि जो बच्चें तीन साल से पढ़ नहीं पा रहे थे वो अब अचानक पढ़ने व लिखने लगे है।

These answers are depended totally on the product but not the processes underlying the ELP approach which make this product possible.

To be more specific answers were sought from teachers on students' performance on reading writing and their study behaviour. From the responses of teachers, it was observed that reading and writing skills of children were improved to a great extent through ELP approach. “ बच्चों को बहुत फायदा हुआ है राजू कक्षा 2 का है। यह रोजाना आता है। राजू पढ़ना सीख गया। तीसरी कक्षा की कई लड़कियां किताब पढ़ना सीख गई हैं। मनसा कक्षा 3 की बच्ची है। उसने अलग से इन्हीं अक्षरों को जोड़कर एक कविता बनाई है। इस तरीके से बच्चे जल्दी पढ़ना लिखना सीख जाते हैं। वैसे 5 वीं कक्षा तक भी बच्चा पढ़ना लिखना नहीं सीख पाता। Not only children were able to construct meaningful words, learn use of MATRA quickly, recite poems and read the word and sentences meaningfully, but they were also able to apply their skills to the new situation like bringing the newspaper cuttings and read in the class, recite poems and construct words when they were free. The impact of ELP approach is well stated in the following statements given by the teachers.

“बच्चें रोमांचित हो जाते हैं। कार्ड, चार्ट टांगते ही पढ़ने को तैयार हो जाते हैं। चेंहरे पर खुशी आ जाती है। बच्चे हमें याद दिलाते हैं मारसाब कार्ड से पढ़ाओं, कविता से पढ़ाओं कहते हैं। ईएलपी की सामग्री को स्वतः ही काम में लेने लग जाते हैं।”

“बच्चे अखबार की मोटी पंक्ति, वाक्यों की कटिंग लाने लगे हैं और पढ़कर सुनाने लगे। लिखे को पढ़ने में रूची लेने लगे। खुश होकर बताते की मैडम मेरा भाई कक्षा 4 में पढ़ता है उसे पढ़ना नहीं आता है। मैं तो पढ़ लेता हूँ। बच्चे गर्व महसूस करते हैं। बच्चे अभिभावकों को लिखकर व पढ़कर सुनाते हैं। नाम व अन्य ८ शब्द लिखने लगे हैं। इस पद्धति से बच्चों की अटैन्सन्स पर बहुत फर्क पड़ा है।”

“जल्दी पढ़ना लिखना सीख जाते हैं। कविताएं बच्चे गाते रहते हैं जैसे “चाचा चले, चाचा चले” चार चीते रेल में आये।” जो अक्षर सिखा रहे हैं उन अक्षरों को जोड़ कर करवाते हैं। यह बहुत अच्छा तालमेल है। ”

Time engaged on task was increased through this approach and they also feel pleasure and enjoy the task of reading and writing. The classroom discipline increases, children become more regular and

develop self confidence. All of these are required at this early stage to develop a positive attitude towards school and eventually towards education.

Regarding the difficulties observed in the ELP approach, majority of the teachers interviewed responded in favour of this approach rather than on the difficulties. Their responses to the shortcomings are directed to less number of teachers and to multi-grade teaching. A few teachers expressed that initial two or three months was difficult for them to accommodate this approach. However, afterwards it becomes easy to implement these methods in the classroom, as the children begin to respond positively.

In the context of improvement of the ELP approach, the teachers suggested that it could be implemented with more MATRAs in the beginning, and to start ELP at the beginning of the session. They even suggested applying this approach to other subjects rather than language teaching only. However, the provision of one teacher one class is demanded by many teachers for the effective implementation of ELP approach in primary school.

Early literacy project is implemented in rural Govt. school comprising children for low socio-economic status and illiterate parents. These children are generally first generation learners. So it is a challenging task to bring these children to school and nurture their cognitive and affective domain for quality learning and sustain their interest in study for future. Obviously, appropriate strategies are required for this purpose. To know to what extent teachers were aware about the causes of drop out for these rural schools and what are the remedies for those, a last question was asked. From their responses some common causes were: caring younger brother and sisters; work at home; taking care of animals and lack of attention by parents. No remedy was suggested by the teachers. One teacher perceives the ELP approach as an alternative strategy for checking dropout in rural school. “खेती के काम, घर पर छोटे मोटे कामों को रखने, जानवरों को चराने की वजह से बच्चे नहीं आते। इस पद्धति को गांव वालों ने भी देखा है। गांव वाले बहुत खुश हैं अपने बच्चों के स्तर के लिए। यहां के अभिभावक बच्चों को पढ़ाने के लिए किशनगढ़ प्राइवेट स्कूल भेजते हैं। ईएलपी कार्यक्रम की वजह से वो अब बच्चों को हमारे विद्यालय में भेजने को तैयार हुए हैं।”

Feedback for Education officers

To find out the ‘fate’ of ELP approach in future, policy makers (at school level) were interviewed. Five education officers from different cadre (BRCF, BEO, Headmaster, CRCF, SDI) were asked to

respond on the feed back they received about the implementation of ELP in their areas and what they expect from Early Literary Project. Regarding the effect of ELP approach, they all appreciate the strategy used by ELP team. The responses in their own words clearly stated its effectiveness as below. “बच्चों में रूची पैदा हो रही है। बच्चे मन से पढ़-लिख रहे हैं। बच्चों के स्थानीय परिवेष्ट से विधियों को जोड़ने के कारण बच्चों को अच्छा रिसपोन्स मिला रहा है। चुरली के हेड मास्टर ने तो बहुत सराहया है ईएलपी को।”

Observing the performance of students during their visit to schools, they find the difference in reading and writing skills of students in the school where ELP was implemented. Basically the difference is in comparison to the performance of students in govt. primary schools. In this context the statement of SDI is presented below.

“बहुत बढ़िया। मैंने देखा है कि चार-चार अक्षर के ष ाब्द दूसरी कक्षा के बच्चे आसानी से पढ़ पा रहे हैं। मैंने सोचा चौथी-पाँचवीं के बच्चों हैं। पूछने पर पता चला कि वे दूसरी के बच्चों थे जो चार अक्षर के ष ाब्द पढ़ रहे थे। चौथी कक्षा का बच्चा किताब नहीं पढ़ सकता है। यह बच्चे वाक्य पढ़ रहे थे। पूरे-पूरे वाक्य पढ़ रहे थे जैसे “मेरा गाँव चून्डड़ी है।” “मेरा जिला अजमेर है।” यह पढ़ व लिख पा रहे थे आसानी से।”

As stated in the beginning about the ‘fate’ of ELP approach, the expectations of education officers are quite encouraging. The ‘fate’ of ELP approach seems very bright. All the officers are in favour of implementing in all the govt. schools. The statement of one officer is given below:

“मैं समझ रहा हूँ कि एक अच्छा स्टेप है अभी 6-8 स्कूल में चल रहा है अगर आप पर्याप्त स्टाफ सभी स्कूल में दे या सरकारी मशीनरी से जुड़कर कार्य संचालित करे तो अच्छा रिजल्ट होगा। अगर एक या दो आदमी लगा है तो ये समय विंग प्रोग्राम है। यह कन्टीन्यू प्रोसेंस में ये चीजं होनी चाहिए। जिन जहाँ दो चार स्कूल में दो आदमी बढ़ जाएं तो रिटर्न अच्छा होगा। ये मैडम को बड़गाँव में देखा है, कदमपुरा में देखा है। काफी बच्चों में परिवर्तन देखा है। बच्चों में नवीन जागरूकता आई है। मैडम जाती है बच्चों जागरूक होकर मैडम का इन्तजार करते हैं। इतनी जागरूकता मिलती है।”

Regarding parents' opinion it was difficult to infer the trend as only two parents were available for the purpose of interview due to time constraint. However these two parents, though illiterate, but feel the positive impact of ELP approach on the basis of the performance of their children.

Above all the responses to the interviews indicate that the ELP approach is very effective in developing early literacy skills at early stage of schooling. It promotes conducive teaching-learning environment in govt. primary school even for the first generation learners. Such an approach is the need of the hour and definitely it will sustain the educational improvement of students in the elementary and secondary section.

Major Findings From Qualitative Analysis

Class 1

The baseline for both the intervention (ELP managed) and non intervention (Government teacher managed) schools showed that a majority of students are unable to recognize alphabets. By the mid term assessment a significantly larger number children in the intervention schools showed phonemic awareness i.e. were able to identify the initial sounds of words and match them with the correct alphabet, as against children in the non intervention schools. Evidence of the impact of the intervention was also seen in the word identification skills. The end term assessment which was conducted after about 7 months after the commencement of the ELP intervention indicated that the majority of Class 1 children in the schools managed by the ELP team were able to combine alphabets and syllables to construct meaningful words and then illustrate the meaning of the word through a drawing. This showed their ability to construct meaning from written symbols, which is an important foundation skill for meaningful reading. While most of these words were mono and bi syllabic words, some children have also constructed polysyllabic words; further, some of the words which were constructed also showed evidence of complex cognitive functioning. Some words were in their local language *Marwari*, proving that this task was being undertaken with understanding. The number of children who had attained this competency in the non intervention schools was significantly less, with a large number of children simply copying the alphabets and syllables provided. The impact of the intervention was also visible in the qualitative analysis of writing skills, with error patterns of children of the non intervention schools showing difficulty in sound symbols correspondence while writing dictated words, as well as while constructing words. These kinds of errors were significantly less in the intervention schools. The same was also the case with the writing of dictated sentences, with a qualitative difference in the ability of the children from the ELP managed schools to write sentences.

Class 2

The Baseline assessment did not reveal any significant differences in the ability of both the groups to identify alphabets, syllables and words. The impact of the ELP intervention however becomes visible in the mid term assessment. Here the performance of the intervention schools while constructing meaningful

words is significantly superior to that of children from the non intervention schools, with the words that were constructed in the ELP managed schools showing a greater variety and cognitive complexity, such as combining distantly located syllables, reversing syllables or repeating a syllable. These processes were significantly less in the government teacher managed schools, in which more than 50% children were unable to construct words. The midterm assessment repeated the same trend, with a significantly larger number of children in the intervention schools demonstrating a variety of cognitive and linguistic competencies to construct meaningful words and draw picture to illustrate their meanings. Significant differences were also found in the reading comprehension competencies at the sentence level, between the two groups. This was also the case with the ability of the students to read aloud some given sentences.

The mid term assessment of writing skills showed significant improvement in the intervention group for writing dictated alphabets, syllables and words. This progress was sustained in the end term assessment, with a significantly larger number of children being able to write a dictated sentence correctly. The error patterns of the non intervention group while writing sentence were more in the nature of omissions and substitutions, which showed that the children were not reading the sentences with understanding. Such errors were only marginal in the case of the schools managed by ELP.

Class 3

In the baseline assessment children from both the intervention groups were able to recognize alphabets, syllables and words, which included words with some *matras*. However, both groups had problems in combining alphabets and syllables to construct meaningful words. The children from the ELP managed group however showed the ability to repeat syllables and construct words; but both groups had difficulty in constructing words by reversing syllables. The qualitative analysis did not reveal a significant difference between the two groups, during the baseline assessment.

However, the mid term assessment which was conducted after four months showed a significant improvement in the word construction and meaning representation competencies of the ELP managed schools, as compared to the government teacher managed schools. The error patterns in the latter schools did not show any specific trend but they indicate that a large number of children in the non intervention schools had not established the sound symbol relationships required to construct meaningful words, and had therefore constructed a greater number of meaningless words than their peers in the ELP managed schools. The reading comprehension competencies which were assessed through a task which required the children to follow directions for drawing given in five sentences also indicated significantly better performance by the intervention schools. Similar findings were obtained while assessing the fluency of the students while individually reading sentences.

The end term assessment tested reading comprehension through a word classification activity. The findings of the qualitative analysis are significantly in the favour of the intervention schools. Many children from the non intervention schools wrote the words correctly, but not under the correct category. The reading comprehension, which was assessed through writing answers based on a set of five sentences, as well as through the following of written instructions, revealed a similar trend. This was also found in

the case of individualized reading of sentences. The fluency of the ELP managed schools was significantly greater, and even though a few children were unable to read the sentences, they showed a greater improvement in their sentence reading competencies, in comparison to their counterparts from the non intervention schools. Significant differences were also found in the improvement of the writing skills from the baseline to the end term assessment for both the groups.

Major Findings From Interview

In the evaluation study of ELP project the immediate stakeholders related to the project implementation were interviewed in addition to examining the effectiveness of ELP methodologies on class I, II & III Children (target group). The interview schedule that was used contains eight to nine questions related to what, why and how aspects of the ELP project. Different interview schedules were prepared for teachers, education officers and parents. All together eleven teachers, five education offices and two parents were interviewed at the end of the evaluation study. Above all the responses to the interviews indicate that the ELP approach is very effective in developing early literacy skills at early stage of schooling. It promotes conducive teaching-learning environment in govt. primary school even for the first generation learners. Such an approach is the need of the hour and definitely it will sustain the educational improvement of students in the elementary and secondary section.

Conclusions and recommendations

This evaluation study has attempted to facilitate processes of realistic appraisal of children's reading and writing processes within rural government schools in Rajasthan and to also build a deeper understanding of classroom transaction through an assessment of children's performance on reading and writing tasks in response to an external intervention. The study has used a comparative framework of intervention and non intervention government schools. This Evaluation Study has some important implications for government school programmes, since it has utilized the research expertise and strengths available within the government sector itself to critically evaluate existing pedagogies within the State run schools and to then suggest ways to re energise them. Within the plethora of existing research this study may therefore be viewed as important since it intends to strengthen the linkages between the practitioners and the academia within the State sector itself and further knowledge building. Research on Early Literacy within the Indian context is a gap area, which this study has attempted to fill in to a small extent

Reading and writing have become essential for success in the contemporary global world. Research in early literacy however clearly indicates that for children who come from homes where there is limited access to written words, the transition to the written mode can be extremely challenging and therefore needs to be made more accessible and child friendly. This has consequently highlighted the need to

address issues concerning the transition of young learners from their informal and oral home environments to the more formal and written school environments. The understanding within ELP is that classroom based learning methods, that evolve organically over a period of time and are grounded in classroom realities will be more meaningful for the children and teachers who use them. These methods are likely to be sensitive to the linguistic and developmental needs children and also to the socio-historical contexts that the children and teachers come from. This understanding has been crucial for helping ELP to try and develop classroom methods for building strong foundations for initial reading and writing.

ELPs experience and interventions suggest that for many children from rural and marginalized societies their school serves as a vital link into a world that is denied to these children. In the complex webs of their lives the school plays an essential transformative role provided it can enable the children to develop a strong sense of self and become independent thinkers. For this to happen it is important to facilitate thinking processes and skills through the classroom methodologies that are being adopted. It may be noted that during ELP's initial engagement with schools a number of young learners were found to read and write mechanically and without understanding, while others were found to barely be able to read even at the end of Class 5. The ELP interventions addressed some of these challenges through classroom based methodologies that aimed to strengthen the children's skills of phonological processing, as well as the processes of meaning construction. Within the ELP interventions we thus find that in addition to building the sound –symbol correspondence required for engaging with a written script, a conscious effort has also been made to enhance the active involvement of children in the processes of thinking, understanding and constructing meaning while engaging with the written forms language, from the beginners level itself. This has been found to be pivotal for building the thinking skills required for meaningful engagement with aspects of reading and writing within and outside the school curriculum

Within any programme for young learners both the cognitive and the affective aspects need to be addressed. This becomes particularly important within programmes for young learners such as early reading and writing programmes. A crucial aspect of such programmes is their ability to actively involve and motivate young learners to engage with reading and writing with interest and understanding. For this purpose the ELP intervention has used a multi sensory approach which based on an understanding of the affective needs of young learners. Thus the learners play a variety of written language games; make drawings for expressing the meanings words that they construct; follow written directions, read and write poems, and so on. All of these are activities have tried to be meaningful and purposeful for the children, so that they are able to actively engage and capture the imagination of the children.

The success of the ELP approach can be assessed from the fact that while the target group of children within the two categories of schools i.e. the intervention schools and the non intervention schools, was the same, there has been a significant difference in the reading and writing performance in response to different evaluation tasks, with a remarkable improvement in reading and writing skills becoming evident within the intervention or ELP managed schools. This difference can be attributed to the impact of the ELP intervention. Responses of the teachers and education functionaries who were interviewed suggested an acknowledgement of the need for a change in the methods in use at present in the non intervention or government schools. This also calls for a review of the language pedagogy components of teacher education programmes. There are also important implications for research both for assessing the needs of early readers and writers, as well as for the development of suitable methodologies, learner tracking mechanisms and classroom methods for older children. This evaluation study also has implications for the need for an orientation of policy makers and administrators, so that decisions regarding early literacy programmes are based on an informed understanding.

Based on the above conclusions the following recommendations are being made:

1. Based on the findings of this Evaluation Study, an evaluation of the existing programmes for Early Literacy within the Indian context may be undertaken for assessing the effectiveness of the cognitive and affective aspects of these existing programmes.
2. With the objective of implementing the RTE Act, the ELP methodologies be utilized within programmes for out of school children to facilitate and promote the effective mainstreaming of such children.
3. Since the ELP methodologies have evolved through a sustained engagement within classroom inside government schools which cater to marginalized children both in the rural and urban context, and these methods have focused on facilitating a smooth home–school transition for such children, therefore these ELP approaches have direct implications for school programmes which cater to children from marginalized and disadvantaged backgrounds. The ELP methodologies may therefore be considered to strengthen foundations of reading and writing in existing school programmes within both the government and non government sectors, especially in schools which cater to children from marginalized communities in the Hindi belt.
4. Further research on children’s natural language processes, reading and writing behaviors and thinking processes is required. Such research has important implications for promoting effective

pedagogies which enhance meaningful school learning and build foundations for the processes of reading and writing. This is a gap area within the Indian context. It is essential to build deeper insights of children's learning behaviours based on research and to be able to critically evaluate existing programmes, as well as methods such as the ELP methods and further improve them. Such initiatives may also be promoted for enhancing reading and writing within other Indian languages which are not based on the *Devanagari* script, such as within tribal languages or languages within the Southern states of India..

5. The major findings of this study along with the methodologies used within the ELP intervention may be shared with teachers, teacher educators' administrators and policy makers.

References

Jayaram, K (2008) Early Literacy Project – Exploration and Reflections – Part 1 and Part 2, *Contemporary Education Dialogue*, 5(2):133-210.

National Curriculum Framework. (2005) New Delhi:NCERT

NCERT (2006) Position paper of National Focus Group on Indian Languages
http://ncert.nic.in/html/pdf/schoolcurriculum/Position_Papers/Indian_Languages.pdf

PPOBE. (1999). *Public Report on Basic Education in India*. New Delhi: Oxford University Press.

Smith, J. and Elley, W. (1997), *How children learn to read*, Paul Chapman Publishing Ltd

Smith, J. and Elley, W. (1997), *How children learn to write*, Paul Chapman Publishing Ltd

Street, B.V. (1984) *Literacy in Theory and Practice*. Cambridge: Cambridge University Press.

Yadav, M.S., Bhardawaj, M., Sedwal, M., & Gaur, N. (2001). Learning conditions and learner achievement in primary schools: A review. In R. Govinda (Ed.), *India Education Report*. New Delhi : Oxford University Press

ELP Documents:

Young Learners Learning to Read and Write in Hindi - An overview of the exploratory intervention and research undertaken in Phase I of the Early Literacy Project (ELP) A report submitted to Sir Ratan Tata Trust, Dec 2007

Six Monthly Narrative Report of the Early Literacy Project (ELP) January – June 2008. A report submitted to Sir Ratan Tata Trust, June 2008

Narrative Report of the Early Literacy Project (ELP) January 2008 to August 2009
A report submitted to Sir Ratan Tata Trust, August 2009

Jayaram, K (2009). *Building Foundations for Reading and Writing with Understanding in Young Learners from Marginalized Communities*, Paper presented at the USRN, JNU Seminar, October 30-31

APPENDICES

I

Baseline Assessment

शुरुआती मूल्यांकन .

कुल अंक 20

नाम

कक्षा

स्कूल

दिनांक

1. चित्र बनाओ

2. श्रुतलेख

अंक 10

1 व्यक्तिगत पठन/ लेखन अवलोकन

वर्ण / अक्षर पहचान	टिप्पणी
1. प अ न	1.
ल पा म	
का ना क	
काका	

कुल अंक

स्कूल का नाम :

दिनांक :

बच्चे का नाम :

कक्षा :

गा

ना

सी

मे

री

टी

ला

षी

षा

छा

ता

प

षब्द पूरा करो :

अपने षब्द बनाओ :

गा

.....

मे

.....

छा

.....

षी

.....

सी

.....

त की रेल में तार

न की रेल में

क की रेल में

2 ष गुरुआती मूल्यांकन के निर्देश और अंकीकरण प्रणाली

1. चित्र बनाना (अंक नहीं दिए जाते)

बच्चे अपने घर और परिवार के चित्र खुल कर बनाते हैं। यदि वे कुछ और बनाना चाहते हैं, तो इसके लिए उन्हें छूट दी जाती है, ताकि वे मग्न होकर और मजे से ड्राइंग करे। इसके लिए बच्चों को लगभग 10 मिनट का समय दिया जाता है। ये ड्राइंग हर बच्चे की एक झलक शिक्षकों को दिखाती हैं और यदि शिक्षक इन्हें गौर से देखें तो उन्हें हर बच्चे की कुछ न कुछ विशेष जानकारी उनकी ड्राइंग में मिल सकती है।

2. श्रुतिलेख

श्रुतिलेख की सूची – आ, क, न, प, ई, म, ल, का, मा, काका,

शिक्षक हर वर्ण/अक्षर या ष षब्द को धीरे-धीरे दो या तीन बार पढ़ सकता है।

श्रुतिलेख की अंकीकरण प्रणाली

प्रत्येक सही लिखें गए वर्ण/ अक्षर/ ष षब्द के लिए – 1 अंक,
गलत के लिए – 0 अंक
कुल अंक 10

3. व्यक्तिगत पठन अवलोकन

नोट :- हर बच्चे को कक्षा के बाहर ले जाकर व्यक्तिगत स्तर से प्रपत्र में दिए गए वर्ण/षब्द पढ़वाएँ। हर वर्ण की और ऊंगली से एक-एक करके संकेत करे। जब एक बच्चा लगातार पाँच वर्ण नहीं पढ़ पाएँ, तब इस स्थिति में आगे की पठन प्रक्रिया रोक दें, लेकिन ध्यान से ताकि बच्चे को असफलता का अहसास न हों। यदि बच्चा घबराया हुआ है ताक पहले कुछ मिनट के लिए उससे बातचीत करके दोस्ताना रिश्ता बनाने का प्रयास करें।

टिप्पणी के स्थान में बच्चे की पठन प्रक्रिया और उसके आचरण का वर्णन लिखिए। अंक और टिप्पणी बच्चे के जाने के बाद लिखिए।

व्यक्तिगत पठन अवलोकन की अंकीकरण प्रणाली

प्रत्येक सही पढ़े गए वर्ण/अक्षर/षब्द के लिए –1 अंक
गलत के लिए –0 अंक
कुल अंक 10

कक्षा 3 के मूल्यांकन प्रपत्र के निर्देश

1. यह प्रपत्र केवल कक्षा 3 के बच्चों को दिय जाएगा।
2. प्रपत्र पूरी कक्षा को एक साथ करवाया जाएगा। सब से पहले कक्षा 3 के बच्चों की सूची से हर प्रपत्र के ऊपर बच्चे का नाम (नाम के साथ बच्चे की जाति या पिता का नाम) स्कूल, कक्षा, दिनांक और षोध कर्ता अपना नाम लिखें। यह पूरी जानकारी लिखना जरूरी है। इसके बाद कक्षा में प्रपत्र बाँट दें।
3. बच्चों को प्रपत्र की ओर संकेत करते हुए मारवाड़ी में समझाएँ :—
 - अ. सब से ऊपर वाले बाँक्स में षब्द छुपे हुए हैं। बच्चे को ऊंगली से संकेत करके एक छुपा हुआ षब्द **दो बार**, धीरे से बतलाएँ — **गा ना — गाना** । **इसके अतिरिक्त और दूसरा कोई उदाहरण न दें**। बच्चों को बतलाएँ इस तरह के कई षब्द इस बाँक्स में हैं।
 - ब. अब नीचे का पहला बाँक्स ऊंगली से दिखाकर बच्चों को समझाएँ कि इन अक्षरों से जुड़े अक्षरों को ऊपर के बाँक्स से ढूँढकर, उन्हें यह षब्द पूरे करने है, **जैसे गा**, खाली जगह में **गा से जुड़ने वाले अक्षर को ऊपर से ढूँढकर पूरे षब्द को यहाँ पर लिखें। उदाहरण न दें**। इस क्रिया के लिए स्थिति के अनुसार 5 से 10 मिनट दें।
 - स. फिर दूसरे बाँक्स को ऊंगली से दिखाकर, बच्चों को वे ऊपर के बाँक्स में से 5 नए षब्द ढूँढकर यहाँ पर लिखें। इस के लिए बच्चों को स्थिति अनुसार 5 से 10 मिनट दें।
 - द. अब सब से नीचे वाले बाँक्स की पहली लाईन पर ऊंगली लगाकर पढ़िएं जैसे **त की रेल में तारे**। बच्चों को समझाएँ कि एक त से षुरू होने वाले षब्दों की रेलगाड़ी है। उस में **केवल त से षुरू होने वाली षब्द ही जा सकते है**, जैसे तारा। बच्चों से **'त'** से षुरू होने वाले 2—3 षब्द पूछें। इसी तरह से बच्चों को **'न'** और **'क'** से षुरू होने वाले षब्द लिखने को कहें। बच्चों को स्पष्ट त तरह से बतलाएँ कि इन्हें कहाँ पर लिखना है। उदाहरण न देवे।

Midterm Assessment

कक्षा 1 का दूसरा मूल्यांकन .

कुल अंक 30

नाम

कक्षा

स्कूल

दिनांक

1.वर्ण/अक्षर पहचान

शब्द सुनकर उसकी शुरु की ध्वनि वाले अक्षर पर गोला लगाना	गोला वाले अक्षर को लिखना अंक 10
पा	आ
नी	का
म	की
ल	न
ई	मी

2. शब्द पहचान

सही शब्द पर गोला लगाना	गोले वाला शब्द लिखना अंक 10
नाना नीला	1
लाला अपना	2
पीला काका	3
माली नानी	4
पानी काली	5
3. श्रुतलेख	अंक 10

कक्षा 1 के दूसरे मूल्यांकन करवाने के निर्देश कुल अंक 30

1. पहला भाग – वर्ण पहचान

क) वर्ण पहचान के लिए 5 षब्दों की सूची नीचे दी गई है। शिक्षक इन षब्दों को एक एक करके पढ़ते हैं। बच्चे इन की षुरूआती ध्वनियाँ को ध्यान से सुनते हैं, और फिर प्रपत्र में उन से जुड़े वर्ण या अक्षर के चिन्ह पर गोला लगाते हैं।

वर्ण अक्षर पहचान के लिए षब्द सूची – पालक, नमक, मकान, काली, आम

ख) गोले वाले वर्ण षअक्षरों को खाली जगह में क्रम से बच्चों द्वारा लिखना

गोले वाले वर्ण षअक्षर इस प्रकार हैं— पा न म का आ

2. दूसरा भाग – षब्द पहचान

क) षब्दों को सुनकर पहचानने पर बच्चे सही षब्द पर गोला लगाते हैं।

षब्द पहचान के लिए षब्द सूची – माली, काका, नीला, पानी, लाला

ख) फिर हर गोले वाले षब्द को दिए गए सही स्थान में क्रम से लिखना

3. तीसरा भाग – श्रुतलेख

हर वर्ण/अक्षर/षब्द/वाक्य को दो बार बोला जाता है। श्रुतलेख की सूची :

ल ई न क पी आ मी नाला पानी कान

मूल्यांकन की अंकीकरण प्रणाली (कुल अंक 30)

1. वर्ण षअक्षर पहचान: षब्द की षुरूआती ध्वनी से जुड़े वर्ण षअक्षर पर गोल लगाना और उसे खाली जगह में क्रम से लिखना

क) षब्द के सही वर्ण षअक्षर पर गोला लगाने के लिए— 1 अंक; गलत के लिए— 0

ख) वर्ण षअक्षर सही लिखने के लिए 1 अंक; गलत के लिए— 0 (कुल अंक 10)

2. षब्द पहचान: क) सही षब्द पर गोला लगाने के लिए—1 अंक; गलत के लिए— 0

ख) षब्द सही लिखने के लिए — 1 अंक ; गलत के लिए — 0 (कुल अंक 10)

3. श्रुतलेख: प्रत्येक सही लिखे गए वर्ण षअक्षर षब्द के लिए — 1 अंक;

गलत के लिए — 0 अंक (कुल अंक 10)

कक्षा 2 का दूसरा मूल्यांकन

कुल अंक 30

स्कूल:

दिनांक:

बच्चे का नाम

कक्षा :

1. पहला भाग – शब्द खोज 10 अंक

गा
च
रे
सा

ना
ली
ती
ग

ए
क
ला
मे

क. ऊपर से अक्षर लेकर
षब्द पूर करो 5 अंक

ख. ऊपर से अपने कुछ षब्द खोजकर लिखो और
फिर उनके चित्र बनाओ 10 अंक

गा.....

.....

मे.....

.....

च.....

.....

ना.....

.....

सा.....

.....

2. दूसरा भाग – शब्द लिखो

5 अंक

2. हर रेल के लिए शब्द लिखो

10 अंक

क → काल →

प → →

च → →

3.. श्रुतलेख

10 अंक

कक्षा 2 के दूसरे मूल्यांकन करवाने के निर्देश

कुल अंक 30

1. पहला भाग – ष षड खोज

क) ऊपर दी गई अक्षर चार्ट में से अक्षर चुनकर उन्हें क बॉक्स के 5 ष षडों की खाली जगह में लिखकर ष षडों को पूरा करना है।

ख) ऊपर दी गई अक्षर चार्ट में से चुनकर अपने मन के कोई 5 नए अर्थपूर्ण ष षड खोजकर ख बॉक्स में लिखना और फिर हर ष षड के साथ में उसका चित्र बनाना।

2. दूसरा भाग—षड लिखो

इस भाग में क, प और च की रेल दी गई है। हर रेल के खाली डिब्बों में उस रेल के वर्ण से ष षडुरू होने वाले अर्थपूर्ण ष षड लिखने हैं। क रेल में एक ष षड उदाहरण के तौर पर दिया गया है।

3. तीसरा भाग—श्रुतिलेख

हर वर्ण/अक्षर/षड/वाक्य को दो बार बोला जाता है। श्रुतिलेख की सूची :

ह स ग च ज आ त रे घी राजा

मूल्यांकन 1 की अंकीकरण प्रणाली (कुल अंक 30)

1. ष षड खोज : (कुल अंक 10)

क) अक्षर चार्ट से सही वर्ण/अक्षर खोजकर, उसे खाली जगह में लिखकर अर्थपूर्ण ष षड बनाने के लिए -1 अंक, गलत के लिए -0 अंक (कुल अंक 5)

ख) सही ष षड के लिए 1 अंक, गलत के लिए 0 अंक (कुल अंक 5)

2. ष षड लिखो : सही ष षड के लिए 1 अंक, गलत के लिए 0 (कुल अंक 5)

3. श्रुतिलेख : प्रत्येक सही लिखे गए वर्ण/अक्षर/षड के लिए 1 अंक, गलत के लिए 0 अंक (कुल अंक 10)

कक्षा 3 का दूसरा मूल्यांकन

कुल अंक 30

स्कूल:

दिनांक

बच्चे का नाम

कक्षा :

1.शब्द खोज

10 अंक

गा	ना	य
च	ली	क
रे	ती	ला
सा	ग	मे

ऊपर से अक्षर लेकर
षब्द पूर करो

ऊपर से अपने षब्द खोजकर लिखो और
फिर उनके चित्र बनाओ

गा.....

.....

मे.....

.....

च.....

.....

ना.....

.....

सा.....

.....

2. पढ़ो, समझो और करो

10 अंक

- 1 ऊपर एक छोटा घर बनाओ ।
- 2 उस घर के पास एक पेड़ बनाओ ।
- 3 अब उस पेड़ पर दो चिड़िया बनाओ ।
- 4 पेड़ के नीचे एक लड़का बनाओ ।
- 5 फिर आसमान में सूरज बनाओ ।

3. श्रुतलेख

10 अंक

कक्षा 3 के दूसरे मूल्यांकन करवाने के निर्देश कुल अंक 30

1. पहला भाग – ष षड् खोज

क) ऊपर दी गई अक्षर चार्ट में से अक्षर चुनकर उन्हेँ बॉक्स के 5 ष षड् की खाली जगह में लिखकर ष षड् को पूरा करना।

ख) ऊपर दी गई अक्षर चार्ट में से अक्षर चुनकर अपने मन के कोई 5 नए अर्थपूर्ण ष षड् खोजकर बॉक्स में लिखना और फिर हर ष षड् के साथ में उसका चित्र बनाना।

2. दूसरा भाग – पढ़ो, समझो और करो

पाँच अलग वाक्यों में पाँच निर्देश दिए गए हैं। बच्चे इन्हें एक एक करके पढ़ते हैं और फिर इनके अनुसार ऊपर दिए गए बॉक्स में चित्र बनाते हैं। यह बहुत ज़रूरी है कि बच्चे इन्हें स्वयं पढ़कर समझें और शिक्षक इन्हें झाँक नहीं।

3. तीसरा भाग – श्रुतलेख

हर वर्ण/अक्षर/षड्/वाक्य को दो बार बोला जाता है। श्रुतलेख की सूची :

ह स ग च घर

सीता का बेटा हार गया।

मूल्यांकन 1. की अंकीकरण प्रणाली (कुल अंक 30)

1. ष षड् खोज : (कुल अंक 10)

क) अक्षर चार्ट से सही वर्ण षड् अक्षर खोजकर, उसे खाली जगह में लिखकर अर्थपूर्ण ष षड् बनाने के लिए—

1 अंक; गलत के लिए – 0 (कुल अंक 5)

ख) सही ष षड् के लिए 1 अंक; गलत के लिए— 0 (कुल अंक 5)

2. पढ़ो, समझो और करो

प्रत्येक वाक्य के लिए सही चित्र बनाने के लिए—1 अंक

गलत के लिए— 0 (कुल अंक 5)

3. श्रुतलेख: प्रत्येक सही लिखे गए वर्ण षड् अक्षर षड् षड् के लिए – 1 अंक;

गलत के लिए – 0 अंक (कुल अंक 10)

कक्षा 3 का दूसरा मूल्यांकन कुल अंक 10

स्कूल:

दिनांक:

बच्चे का नाम

कक्षा :

4.व्यक्तिगत पठन –

- 1 ऊपर एक छोटा घर बनाओ ।
 - 2 उस घर के पास एक पेड़ बनाओ ।
 - 3 अब उस पेड़ पर दो चिड़िया बनाओ ।
 - 4 पेड़ के नीचे एक लड़का बनाओ ।
 - 5 फिर आसमान में सूरज बनाओ ।
-

अंक

कुल अंक 10 ।

- 1)–हर सही वाक्य को प्रवाह से पढ़ने के लिए –2 अंक ।
- 2)–वाक्य को रूक रूक कर अक्षर व शब्द के रूप में पढ़ने के लिए
–1 अंक ।
- 3)–पूरा वाक्य को नहीं पढ़ना या गलत पढ़ना के लिए – 0 अंक ।

End Term Assessment

तृतीय मूल्यांकन :

कक्षा : 1

नाम

कक्षा

स्कूल

दिनांक

नीचे दिये गये अक्षरों से षब्द बनाओं व षब्दों के चित्र बनाओं

कुल अंक 10

आ	म	सी
चा	रा	मा
ला	ते	ल
गा	ना	क

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

2. शब्द पहचान

ध्वनी द्वारा षब्द पहचान कर गोला लगावो	गोले वाले शब्द को लिखो
पालक मतीरा	1
तारा चीते	2
गारा लाली	3
काचरा नमक	4
ईमली अचार	5

3. श्रुतलेख

अंक 10

कक्षा 1 के तीसरे मूल्यांकन के निर्देश

कुल अंक 30

1. पहला भाग – ष ष्ठ खोज

क) अक्षर चार्ट में दिये गये अक्षरों को जोड़कर नीचे दिये गये स्थानों पर ष ष्ठ बनाने हैं। कुल दस ष ष्ठ बनाने हैं। फिर ष ष्ठों के सामने इनके चित्र बनाने हैं।

2. दूसरा भाग – ष ष्ठ पहचान

क) ष ष्ठ को सुनकर पहचानने पर बच्चे सही पर गोला लगाते हैं

ख) ष ष्ठ पहचान के लिए ष ष्ठ सूची – पालक, चीते, काचरा, गारा, अचार

3. तीसरा भाग – श्रुतलेख

हर वर्ण/अक्षर/षष्ठ/वाक्य को दो बार बोला जाता है। श्रुतलेख की सूची :

सा, के, री, च, ग, चारा, तगारी, मेला

चाचा आई पानी लाई।

मूल्यांकन 1. की अंकीकरण प्रणाली (कुल अंक 30)

1. हर सही ष ष्ठ के लिए 1 अंक (कुल अंक-10)

2. ष ष्ठ पहचान :

क) सही ष ष्ठ पर गोला लगाने के लिए 1 अंक, गलत के लिए 0 अंक (कुल अंक-10)

ख) सही ष ष्ठ के लिए 1 अंक, गलत के लिए (कुल अंक 10)

3. श्रुतलेख :

क) प्रत्येक सही लिखे गए वर्ण / अक्षर / वाक्य के लिए – 1 अंक, गलत के लिए – 0 अंक (कुल अंक 8)

ख) वाक्य में 3 या 4 सही ष ष्ठ के लिए 2 अंक

1 या 2 सही ष ष्ठ के लिए 1 अंक

गलत के लिए 0 अंक

तृतीय मूल्यांकन

कुल अंक 30

कक्षा : 2

स्कूल:

दिनांक:

बच्चे का नाम

कक्षा :

1. पहला भाग – शब्द खोज

10 अंक

ता	जा	नी
टा	या	पा
थी	ल	ही
घ	र	रा

क. ऊपर से अक्षर लेकर
षब्द पूर करो 5 अंक

ख. ऊपर से अपना षब्द और उसका चित्र बनाओ
5 अंक

ची.....

.....

बे.....

.....

हा.....

.....

रा.....

.....

सा.....

.....

2. दूसरा भाग –

10 अंक

पढ़ो, समझो और करो

कमली ने एक तारा देखा था।

तारा चमक रहा था।

तारा देखकर कमली नाचने लगी ।

क) जवाब लिखो

कमली ने क्या देखा ?

तारा कैसा था ?

तारे को देखकर कमली ने क्या किया ?

ख) चित्र बनाओ

नाचती कमली का चित्र —

चमकता तारे का चित्र —

3कृ श्रुतलेख

10 अंक

तृ तीय मूल्यांकन

कुल अंक 10

कक्षा : 2

स्कूल:

बच्चे का नाम

दिनांक:

कक्षा :

4.

व्यक्तिगत पठन —

1.कमली ने एक तारा देखा था।

2.तारा चमक रहा था।

अंक

कुल अंक 10

1. हर सही ष् अक्षर के लिए 1 अंक — कुल अंक 10

2. हर गलत ष् अक्षर के लिए 0 अंक

कक्षा 2 के तीसरे मूल्यांकन के निर्देश

कुल अंक 30

1. पहला भाग – ष ङ खोज

क) ऊपर दी गई अक्षर चार्ट में से अक्षर चुनकर उन्हेँ **बॉक्स** के 5 ष ङ ङ्खों की खाली जगह में लिखकर ष ङ ङ्खों को पूरा करना।

ख) ऊपर दी गई अक्षर चार्ट में से अक्षर चुनकर अपने मन के कोई 5 नए अर्थपूर्ण ष ङ ङ्ख खोजकर **बॉक्स** में लिखना और फिर हर ष ङ ङ्ख के साथ में उसका चित्र बनाना।

2. दूसरा भाग – पढ़ो, समझो और करो

क) **जवाब लिखो**— ऊपर दिए गए अनुच्छेद पढ़कर, नीचे दिए गए प्रश्नों का पूरे वाक्य में जवाब लिखना।

ख) **चित्र बनाओ**— दिए गए निर्देश के अनुसार चित्र बनाना।

3. तीसरा भाग – श्रुतलेख

हर वर्ण / अक्षर / षब्द / वाक्य को दो बार बोला जाता है। श्रुतलेख की सूची :

स त चा गी बे राजा

बकरी ने घास खाया ।

मूल्यांकन 1. की अंकीकरण प्रणाली (कुल अंक 30)

1. ष ङ खोज : (कुल अंक 10)

क) अक्षर चार्ट से सही वर्ण / अक्षर खोजकर, उसे खाली जगह में लिखकर अर्थपूर्ण ष ङ ङ्ख बनाने के लिए— 1 अंक; गलत के लिए – 0 (कुल अंक 5)

ख) सही ष ङ ङ्ख के लिए 1 अंक; गलत के लिए— 0 (कुल अंक 5)

2. दूसरा भाग – पढ़ो, समझो और करो (कुल अंक—10)

क) **जवाब लिखो** – पूरे वाक्य में सही जवाब के लिए – 2 अंक, केवल ष ङ ङ्खों में सही जवाब के लिए (वाक्य में नहीं) –1 अंक, गलत के लिए – 0 (कुल अंक 6)

ख) **चित्र बनाओ** – चित्र के लिए 2 अंक

चित्र बनाओं – निर्देश के अनुसार, समझ से चित्र बनाने के लिए –2 अंक, चित्र में निर्देश की समझ नहीं दर्शाने के लिए –0 अंक (कुल अंक 4)

3. **श्रुतलेख**: प्रत्येक सही लिखे गए वर्ण / अक्षर / ष ङ ङ्ख के लिए – 1 अंक; गलत के लिए – 0 अंक (कुल अंक 10)

तृतीय मूल्यांकन :

कुल अंक 30

कक्षा : 3

नाम कक्षा स्कूल दिनांक

1. शब्दों को सही घर में लिखो

चावल जीप कार दाल

चीता बकरी चीनी साइकिल

गाए पालक

खाने की चीजे

वाहन

1.

1.

2.

2.

3.

3.

4.

जानवर के नाम

1.

2.

3.

2. दूसरा भाग – पढ़ो, समझो और करो

10 अंक

गीता और काना को पेड़ अच्छे लगते हैं।
गीता ने खेत में चार आम के पेड़ लगाए।
काना ने खेत में तीन नीम के पेड़ लगाए।
काना और गीता पेड़ों को पानी पिलाते हैं।

क) जवाब लिखो

10 अंक

गीता ने कितने पेड़ लगाए ?

गीता ने किस के पेड़ लगाए ?

काना ने कितने पेड़ लगाए ?

काना ने किस के पेड़ लगाए ?

काना और गीता ने पेड़ कहाँ लगाए ?

ख) चित्र बनाओ

गीता और काना —

आम —

नीम का पेड़ —

3कृ श्रुतलेख

10 अंक

कक्षा 3 का तीसरा मूल्यांकन

कुल अंक 10

स्कूल:
बच्चे का नाम

दिनांक:
कक्षा :

4.

व्यक्तिगत पठन –

1. गीता और काना को पेड़ अच्छे लगते हैं ।
2. गीता ने खेत में चार आम के पेड़ लगाए ।
3. काना ने खेत में तीन नीम के पेड़ लगाए ।
4. काना और गीता पेड़ों को पानी पिलाते हैं ।
5. काना और गीता मिलकर आम खाते हैं ।

अंक

कुल अंक 10

1. हर सही वाक्य को पढ़ने के लिए 2-अंक
2. वाक्य को रूक-रूक कर अक्षर व शब्द के रूप में पढ़ने के लिए -1 अंक
3. पूरा वाक्य को नहीं पढ़ना या गलत पढ़ने के लिए - 0 अंक

कक्षा 3 के तीसरे मूल्यांकन के निर्देश

कुल अंक 30

1. पहला भाग – ष ङ खोज

ऊपर के बाक्स में हर ष ङ ङ्ख को उसके नाम के हिसाब से नीचे दिए गए तीनों बाँक्स में से सही बाँक्स में लिखना।

2. दूसरा भाग – पढ़ो, समझो और करो

क) जवाब लिखो— ऊपर दिए गए अनुच्छेद को पढ़कर, नीचे दिए गए हर प्रश्न का पूरे वाक्य में जवाब लिखना।

ख) चित्र बनाओ— दिए गए निर्देश के अनुसार चित्र बनाना।

3. तीसरा भाग – श्रुतलेख

हर वर्ण / अक्षर / षब्द / वाक्य को दो बार बोला जाता है।

श्रुतलेख की सूची :

ह र सा जी घीया छाते

चेतन भागकर थक गया।

मूल्यांकन 1. की अंकीकरण प्रणाली (कुल अंक 30)

1. ष ङ खोज : (कुल अंक 10)

ष ङ ङ्ख को सही बाँक्स में लिखने के लिए 1 अंक; गलत बाँक्स में लिखने के लिए— 0 (कुल अंक 10)

2. दूसरा भाग – पढ़ो, समझो और करो 10 अंक

क) जवाब लिखो – पूरे वाक्य में सही जवाब के लिए – 2 अंक; केवल ष ङ ङ्खों में सही जवाब के लिए (वाक्य में नहीं) –1 अंक; गलत के लिए – 0 (कुल अंक 10)

ख) चित्र बनाओ – चित्र के लिए अंक नहीं दिए जाएँगे, परन्तु इन चित्रों से बच्चों की समझ का अहसास मिलता है, और इसलिए यह चित्र महत्वपूर्ण हैं।

3. श्रुतलेख: प्रत्येक सही लिखे गए वर्ण / अक्षर / ष ङ्ख के लिए – 1 अंक; गलत के लिए – 0 अंक (कुल अंक 10)

II Qualitative Analysis – methodology

The following procedure was adopted for the qualitative analysis:

1. Descriptive categories were devised based on all the children's responses to each test item. These categories which were in terms of comments / descriptions were copied onto a tabular A3 size chart, with one column for each category and one row for each child. The categories were entered on separate sheets for each class i.e. for Classes 1, 2, and 3.
2. Each child's code was entered row wise along with the related set of categories, for the baseline, midterm and end term evaluation.
3. Once all the categories had been copied, these were read question wise, i.e. first all the categories for Question 1 were read across the entire data for a particular Class across all the schools. This exercise was undertaken jointly by the ELP team (3 people), and was done for all the three evaluations i.e. the baseline, midterm and end term.
4. Descriptive categories were arrived at from the responses / descriptions within the data, through a dialogic process which attempted to view each child's response within a wider conceptual framework of reading, in an effort to ensure that the analysis is conceptually dense. The process of arriving at a category was through discussion between the three ELP researchers who jointly identified the dominant reading/ writing response to each test item.
5. Each child's response was marked under each the various categories in terms of a three point rating scale as follows: Y for Yes, N for No and NA for Not applicable.
6. New categories were arrived on cumulatively as one progressed from one data sheet to the next.
7. While naming the categories an effort was made to specify the exact nature of the reading/ writing response, the specific conditions under which it occurred and any interaction with the researcher.
8. Regular notes/ memos were written while categorizing. These attempted to explicate the process of arriving at the category and the relationship between the different categories /codes.
9. As the categorizing progressed the parameters of each category were refined and expanded to incorporate related responses. In this way the categories were built up cumulatively, with old categories being refined constantly, and new categories being added to include responses which had not been observed in the earlier data sheets.
10. It was found important to describe the response as it occurred. The children's responses were categories in terms of the underlying cognitive complexity. For example, in the case of combining syllables from an *akshara* chart to construct words, there were categories which specified if the selected syllables were adjoining ones; if they were at a distance from each other; or if the same syllable was repeated and so on. The focus of the categories is therefore not just on the incidence and prevalence of responses, but also the level of complexity of the response.

11. Since refining and reviewing of categories had happened cumulatively, the earlier set of data sheets for Schools 1, 2 and 3 were revisited and re coded in the light of the modifications that had been made later on.

12. After all the categories had been arrived at, broader categories were arrived on, and different conceptually related response categories were clubbed together under one broad category.



A pictorial representation of the Early Literacy Project (ELP)



Teacher's workshops



Visit to an ELP School by the DEO, Ajmer Distt



Tracking Learner Progress



ELP presentation at RIE Ajmer on 26 June '09

Classroom processes



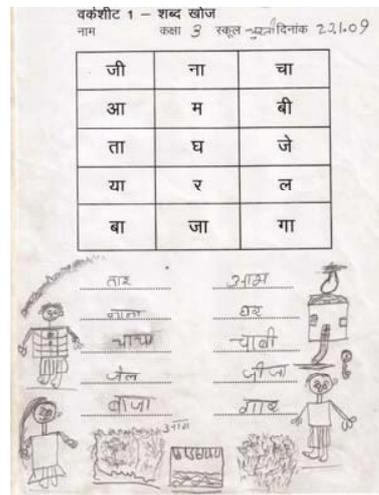
Reading and sharing storybooks



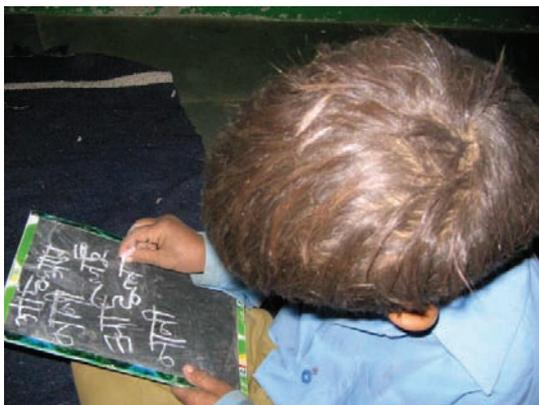
Understanding sound-symbol relationships



Drawings words starting with different alphabet



Using the akshara chart to make words and then drawing pictures for these words



Making words from the akshara chart



Drawing pictures to visualise words



Using *akshara* flash cards to make meaningful words



Using word walls and *akshara* cards for meaningful word activities



Combining *akshara* cards to make sentences

Print based interactions in Classes 2 and 3



Reading and following directions to draw



Experience based writing



Reading poems from posters



Writing poems based on the posters

Glimpses from the night schools

