Early Literacy Project – Explorations and Reflections Part 2: Interventions in Hindi Classrooms

Keerti Jayaram*

Abstract: *The Early Literacy Project is an intervention to support Hindi learners. In the first part of this paper, the theoretical concerns were discussed. In this second part, the experiences of working within classrooms of a few government schools is presented. These included linguistically controlled interventions for beginners, which aimed to build strong foundations in phonological awareness, orthographic knowledge and skills of meaning constructions in keeping with natural pre-dispositions and the out-of-school languages and experiences of learners. The experiences of setting up 'active print rich classrooms' is also discussed. This has required great systemic efforts, but the results from classrooms have been very positive and encouraging.*

The background

As mentioned in Part 1, the Early Literacy Project (ELP) was implemented in 2 sections each of Classes 1, 2 and 3 of 6 Municipal Corporation of Delhi (MCD) schools, which are located in South West Delhi. In the context of the MCD Schools, it became essential for the interventions to take cognizance of the special needs of most of the beginning level learners, who do not have support for reading and writing at home, and therefore needed to be equipped with the foundation skills and knowledge required for effective engagement with reading and writing. As discussed at length in Part 1, literature borne out of the field of Emergent Literacy and other socio-cultural perspectives on Early Literacy has confirmed that young learners who come from homes which offer a print culture, generate a network of competencies and strategies out of early reading experiences in their homes, which power

subsequent independent literacy learning. Such children come better equipped to deal with school learning than others who are encountering print for the first time when they enter school. Current literature on Early Literacy has recognized that children, who do not have a print environment at home, require explicit approaches to equip them with the foundation skills and knowledge required for effective engagement with reading and writing. This is crucial in enabling them to make gradual and smooth transitions from their oral cultures at home to the print culture at school. Based on this understanding the ELP intervention for beginning literacy in Classes 1 underscores the importance of systematically providing graded and structured learning materials and methods within linguistically controlled classroom print environments which are designed to build a strong foundation for phonological and orthographic processing, as well as for developing the skills of meaning construction, in meaningful and active ways that attempt to tap the children's out-of-school language and experiences. ELP has found it essential to deal with Class 1 learners as a separate group, and is of the firm conviction that multi-grade situations which combine Class 1 with older classes do so at great cost to the foundation learning process of beginning learners.

For the slightly more advanced early readers and writers in Class 2 and beyond, the ELP intervention has attempted to locate itself within overarching constructivist and Vygotskian socio-cultural perspectives that reinforce reading and writing as active and meaningful language processes, which are connected to the language, experiential and symbolic inner worlds of individual learners. Further, the classroom is viewed as a social setting which offers the possibility for a variety of authentic literacy practices within and outside the curricular framework. Through the setting up of print rich classroom environments, the ELP intervention aims to facilitate spontaneous literacy practices, so that the processes of individual literacy acquisition occur within the authentic social contexts which are available within the classroom. The basic assumption is that these young learners will acquire and strengthen their competencies in written language, in the same ways as they do for their spoken language, i.e. through the purposeful and meaningful usage achieved through active engagement with their immediate social and physical environment. Through this vision the walls of the classroom are intended to be used as a buffer zone between the children's real worlds outside the class room and the world that exists inside the classroom. In this way, the print rich class attempts to

facilitate a smooth transition from home to school for children from diverse and marginalized backgrounds.

The ELP interventions have thus focused at two learner levels, which are being presented in two separate sections below:

A. The ELP interventions for beginning literacy learners in Class 1, i.e. methodologies for building phonological skills and orthographic knowledge, as well as, for developing processes of meaning construction in Hindi.

B. The ELP interventions for more advanced literacy learners in Classes 2 and 3, i.e. the development of print rich classrooms for supporting and strengthening meaningful reading and writing in Hindi.

A. The development of phonological skills, orthographic knowledge and processes of meaning construction.

The intervention methodologies for building phonological skills, orthographic knowledge and for facilitating processes of meaning construction in written Hindi were based on individual baseline reading observations which were conducted for approximately 1300 children on a graded tool, which reflected the linear progression within the existing classroom reading practices[1]. These observations have highlighted a diversity of reading behaviours within each class, which ranged from learners who did not demonstrate any knowledge of sound-symbol relationships within their reading behaviour to fluent readers who were able to read continuous texts with understanding. More importantly, these observations also reinforced the challenges of addressing individual needs of young learners at different performance levels within a single large class and of making reading and writing a meaningful process for diverse groups of beginning literacy learners. ELP did not find the prevailing practice of using the chronological arrangement of sounds according to phonetics - which is commonly referred to as the Hindi alphabet or the *Varna mala* - an effective approach in these large beginning learner classes. Observations of individual reading processes suggested that children were engaging with reading and writing based on the *varnamala* in mechanical ways, through the use of their short term memories, so that with gaps in time, such as during holidays many children forgot all that they had learnt and were back to square one, thus making it exceedingly frustrating for their teachers. Therefore, the intervention evolved in response to the need for more active and meaningful learner engagement

with the process of reading and writing. It aims to equip children with the following skills:

a) Skills of sound-symbol mapping required for word recognition

b) Skills of meaning construction

The approach to beginning reading and writing in Hindi that evolved included a structured framework of controlled exposure to select groupings of consonants, vowels (*varnas*) and the diacritical markers for secondary vowels (commonly known as *matras*). Consequently, the Hindi *varna mala* was re-divided into seven groups called *varna samoohas.* Each *varna samooha* consists of a select grouping of consonants, vowels. The seventh *varna samooha,* however, consists of complex conjunct consonants, short vowels and vowel diphthongs and the diacritical markers for nasalizations and extended aspiration (*anuswara, anunasik* and *visarga*); all of which have

Table 1. The components of Varna *samoohas* 1 to 6 in the chronological order in which they are introduced by ELP in Class1

Varna Samooha No.	Consonants						Vowels					Secondary vowels (matras)			
1	क	म	ल	न	प		अ	आ	ई			ा	ी	॑	
2	च	र	स	त	ग		अ	आ	ई	ए		ा	ी	॑	
3	ज	य	ह	ब	ड	घ	अ	आ	ई	ए		ा	ी	॑	
4	ध	द	थ	भ	ठ		अ	आ	ई	ए		ा	ी	॑	
5	ट	व	श	छ	फ	ड़	अ	आ	ई	ए		ा	ी	॑	
6	ढ	झ		ष	ख		अ	आ	ई	ए	ऊ	ा	ी	॑	॒

These *varna samoohas* groupings, which have been presented in Table 1 above, evolved through an organic process of close interface with classroom practice, which extended over a period of approximately six months and included a process of trial and error, with review and modifications based on the children's responses. Selection of the specific components within each *varna samooha* grouping, was done through a dialogic process, during which teachers used their intuitive knowledge and experience with beginning learners to select

suitable vowels and consonants (graphemes/phonemes) for each *varna samooha*. These selections were based on considerations such as the frequency of occurrence, and distinctiveness in the sounds and visual topography for each grapheme/phoneme/alpha- syllable (*varna*)[2]. An important consideration while making selections was also the ease with which these sub-lexical items combine to generate words, which are either thematically related (such as words for family names or names of colours), or rhyming words based on sound patterns. It is important that these *varna samoohas* are viewed as flexible, so that they can be modified to address different contexts. The corresponding classroom pedagogy based on these groupings has been called the **varna samooha approach.** It emerged as a multi pronged approach which introduces letters, words, and texts simultaneously.

The classroom process

Beginning with *varna samooha* 1, the children are introduced sequentially to the components of each *varna samooha*, one at a time (as shown in Table 1 above). The classroom approach for presenting each *varna samooha* begins with the introduction of its component consonants and vowels, which are presented to the children one at a time. This is followed by the simultaneous introduction of interrelated syllables (*aksharas*), words and rhymes/poems, which are presented through an *akshara* chart, word walls and a poem poster respectively as shown below, in the visual representation for *varna samooha* 1. For each *varna samooha.* ELP has developed an *akshara* chart, a set of *akshara* cards, lists of thematic and rhyming words for use in the word walls, and three poem posters. Based on the demand from 600 MCD school teachers who were trained by ELP under the aegis of Sarva Shiksha Abhiyan, ELP has recently developed a resource pack, which provides these supportive materials, along with teacher's guidebooks, evaluation formats and a demonstration CD.

A graphic visual for *varna sammoha* 1 is presented below as an example to show the four interrelated elements which are used while implementing the *varna samooha* approach. The introduction to each *varna smaooha,* begins with the presentation of its consonants, one at a time. This is followed by the vowels. The children are first introduced to each alphabet[3] shape on the blackboard. They copy it on their slates and trace the shape with their fingers or write it in the air. Such activities help the children to internalize the shape and understand the

direction flow to be followed while writing. Next, the children are asked to orally provide words that begin with the particular letter sound; these may be words from their real world or in their home languages. They are then asked to draw images of these words on their slates, so that they internalize the initial sound of these meaningful words and understand the inherent sound-symbol relationship. ELP considers this process of making children draw familiar words which begin with the initial sound of the particular alphabet in focus to be an essential step in this process. Initially this is challenging, especially for children from rural backgrounds, and it can take up to a week to ten days to introduce just two consonants through this process. However, once the children make a breakthrough they begin to relate to newly introduced letters meaningfully and with greater ease. Some words starting with the letter /ke/ which were given by the children in Rajasthan villages included the following *Marwari* words.: *'kakri', 'kaledi', 'kaagla' 'kankar', 'kaka' 'kanchere'* etc, while children in the Delhi Schools provided distinctly different words like *'cable,' 'kajal', 'kabootar' 'kutta', 'kameez', 'kitab', 'kurta'.*

Once the children have demonstrated mastery over sound-symbol correspondence, all the consonants, vowels and *matras* within a *varna samooha* are presented to them as syllables (*aksharas*) through an *akshara* chart, as shown above in the visual depiction for *varna samooha* 1. Recitation of the *akshara* chart is now practiced daily in a variety of ways, so that children master the sound and symbol relationship for each *akshara.*, For example, one teacher combined it with actions, while another teacher changed the directions for the recitation, from right to left or bottom to top etc, and in this way made the recitation more challenging and interesting. In most schools

Figure 1: Components of Varna Samooha-1

these recitations follow the traditional sing song patterns that children are familiar with. This is followed by single children coming up to the chart and identifying random *aksharas.*

When the children become adequately familiar with the *aksharas* they are introduced to the displayed written forms of words available within a *varna samooha,* through visually accessible word walls (see Figure.1)**.** Word lists of thematically related words, as well as rhyming words have been made available to teachers in the teacher's handbook for each *varna samooha.* Children are familiarized with these words through word games and activities. They are simultaneously introduced to the process of segmenting the displayed CVCV words into sub-lexical units by clapping to the beats of a word. This is called word clapping or *shabd taali.* The children learn to break up the CVCV word नानी into ना (one clap) + नी (one clap). The corresponding *akshara* chart is now also used for introducing the reverse process of combining *aksharas* to construct words.

The children are next exposed to small rhymes or poems which have been generated from within each *varna samooha* by using only those *akshara* combinations that are available within each *varna samooha.* Initially these rhymes are introduced one at a time, through choral recitation. Once children have learnt these and are familiar with the words and sound patterns within a rhyme, they are introduced to its written form through a rhyme/poem poster. This provides exposure to meaningful continuous text, which is visually accessible to the children. The teacher now points to the written text during recitation and encourages children to follow the written words from the poster as they recite, so that very quickly they are able to read it independently; a process that has been found to be empowering and motivating. The children are also engaged in activities based on the poems, such as making their own poems, and experience sharing. The idea is to engage these beginning learners with different forms of the written language in ways that are meaningful and non-threatening for them.

Once the above processes have been mastered within the structured framework of the *varna samooha,* each child is encouraged to construct her own words from the *akshara* chart, based on words which are available within her internal semantic memory and symbolic repertoire, by manipulating and combining available *aksharas* (C, CV or V). This provides an opportunity for each child to discover her own meaningful words hidden within the *akshara* chart. Gradually, some children have been found to move beyond the simple CVCV

words and become adept at finding more complex polysyllabic words like *paalak* (spinach), *makaan* (house), *namkeen* (salty), *kaaleen* (carpet) etc. from the *akshara* chart for *varna samooha* 1. Some of these words are then displayed and shared through word walls, and used for word activities and games. One of the strengths of the *akshara* chart is that it facilitates multi level functioning and is able to simultaneously accommodate children functioning at different levels of complexity. It is thus a useful resource within situations of classroom diversity. The children are also required to visualize the meanings of their words through "word drawings" in their own free ways. ELP believes that drawing is a very important step in the process of learning to read and write meaningfully as it helps children to symbolically represent their individual meanings. Based on the Vygotskian perspective, ELP considers this to be an important step in the process of meaning construction. During such activities the children's spellings and drawings are not "corrected", so that they feel a sense of inner connection with these written words and their drawings. This helps the children to realize that reading and writing are another form of language and are process which are connected to them. Sharing children's drawing across schools reinforces the importance of drawing words and to make teachers receptive to the importance of this process.

The *varna samooha* approach

For many young learners the *akshara* chart was like a magic chart or treasure hunt within which they discovered the treasures of their own hidden words. This was exciting for them and they began to relate to written words in active and enthusiastic ways. The process of visualisng their words through drawings was also found to be in consonance with the children's natural inclinations, and once initial hesitations were overcome, they responded with serious engagement with their visual creations. Through this process ELP made two interesting observations. The first was that the drawings of different children, at times, represented different meanings for the same word. For example, children's' drawings for the word लाली (*laalee*) represented completely different meanings; one child had drawn a little girl; while another had drawn a sunset; a third child drew a picture of red colouring on lips; and yet another little boy drew the picture of his pet goat whose name was *Laalee*. Thus, the meaning that each child had constructed for the same word was unique to his / her specific experience and mental imagery. The second observation revealed that the

akshara chart had provided opportunity for children to locate words from within their home languages and experience (since many Indian languages and dialects are akin to Hindi). For example, children had combined *aksharas* from *Varna samooha* 1 to form words like *paakee* (bird in Bengali), *ammi* (mother in Urdu), *aapaa* (personal pronoun in Marwari), neem (name of tree), *leemka* (name of aerated drink) etc. In more recent experience with children in rural Rajasthan, the same *akshara* chart based on *varna samooha* 1, has been used by children to construct words like, *makka* (maize), *leepna* (process of mud plastering), *paalaa* (to walk), *kaal* (yesterday), *aak* (eye), *kaaee* (what), *neekaa (*positive expression related to actions). These words are based on experiences in rural Rajasthan and were presented in *Marwari,* which is the home language of the children It seemed to be empowering for the children to be able to capture the words from their real worlds, within the printed text available in school, which is probably why these children willingly and repeatedly engage in these activities.

At the same time, it has not been easy for the teachers to hold back and let the children actively explore and engage in the process of "finding their own words" within the *akshar* charts. ELP found that teachers are ever ready to provide the children with predetermined word lists, even though by doing so they deny the children the important cognitive and linguistic processes of manipulating and combining *aksharas* to construct their own meaningful words. For some teachers the issue of accepting words written in children's home languages is confusing and goes against their notions of school, as do children's explorations which may not be within the existing norms of accuracy. There are many such challenges that ELP has had to deal with inside classrooms.

Some key aspects of the *Varna Samooha* approach outlined above are as follows:

a) Introduction to a linguistically controlled and structured framework based on specially selected group of consonant and vowels called *varna samoohas,* which facilitate the simultaneous exposure to alphabets, syllables, words and texts, so that the beginners level learners can actively engage with these sub-lexical items as parts of meaningful words and texts. This systematic and controlled exposure aims to support the acquisition of the foundation linguistic and cognitive knowledge and skills which are required by beginning literacy learners for effective and meaningful

engagement with the sound-symbol mapping and meaning construction within the Devanagari script.

b) As the learners acquire the knowledge and skills required for the sound–symbol mappings within the script, they are provided with opportunities to construct their own written words through free and active manipulation of sub–lexical items (alphabets, syllables and abbreviated secondary vowels or "*matras*"), which are made available within the *varna samooha* framework. Unlike the whole word approach, sight reading programmes or look-and-say methods[4], the children are encouraged through this process to construct words which are not based on any pre determined vocabulary lists or texts, but are words generated from within their individual semantic memories and language repertoires. Some of the words which the children construct are in fact in their home languages or dialects. The approach is also distinct from the approach to Organic Reading proposed by Sylvia Ashton Warner (1963), in that the constructed words are derived by the learners through an intentional process of active manipulation of the available sub-lexical symbols, (alphabets and syllables). These words although from within the child's language repertoire, need not have any subjective emotional significance for the child as in the case of the Organic Reading approach. The focus of the ELP intervention is to provide beginning learners with the opportunity and tools to actively explore the relationship between the spoken and written forms of sub-lexical and lexical items, in meaningful ways. Through this process the children are encouraged to bring their diverse language resources into the classroom so that sound patterns and words from their real world receive acceptance within the world of school.

c) Once the children have constructed their individual written words, they are required to represent the meanings of some of these words pictorially through their individual "word drawings". The children are also encouraged to share and talk about the pictorial depictions of their words. Stemming from the Vygotskian perspective the intervention views this process of symbolic representation of word meanings through drawing, as an important and integral part of process meaning construction which supports the development of meaningful reading and writing processes for beginning learners.

d) Finally, linguistically controlled rhymes and poems serve the dual purpose of firstly, sensitizing the beginning learners to the specific grapho-phonic patterns which are in focus at a particular point of time, and secondly, providing exposure to continuous texts which are within the range of access of the learners, since they have been equipped with the specific knowledge and skills required to engage independently with the written forms of these specially developed, linguistically controlled texts. These rhymes and poems also serve as important motivational tools, since from an early stage they enable beginning learners to engage with meaningful texts as independent readers and writers.

e) To deal with the diversity in performance levels, the children in all classes were grouped into two levels, with those who had not attained alphabet recognition or an understanding of sound-symbol correspondence being included in Level 1. Classroom realities however, made it almost impossible for teachers to give adequate attention to children at level 1. Therefore, ELP designed an exploratory peer coaching or **Pathan Saathi** which was implemented regularly through a daily time slot in classes 2 and 3. This programme is based on the pairing of a beginning level learner (level 1) with an advanced level learner (level 2) from within the same class, who are provided carefully designed material aimed to facilitate intra psychic constructions of script literacy within the beginning level learners, through social interactions with their more advanced peers, The **Pathan Saathi** programme was well received by teachers and children. Some aspects have been captured by ELP in a short film.

All the above mutually interrelated intervention processes have been designed to encourage beginning learners to engage with reading and writing as meaningful processes that are connected to their individual language and real world experiences. More importantly, to provide an acceptance of children's home languages within the classroom, so that beginning learners can be equipped to make a gradual and non-threatening transition to the language and print based experiences of school.

Comparison of intervention and non–intervention children's responses to an *akshara* chart

A preliminary micro study of the children's responses to the ELP intervention was undertaken at the commencement of the new academic year within a single ELP school, with four groups

of children from 2 intervention and 2 non-intervention sections who had recently entered Class 2. The difference between the two groups (intervention and non-intervention) who were selected for this study was in terms of the classroom methodologies which were being used for fostering phonological awareness in Hindi; with the ELP *varna samooha* approach being used in the intervention sections, and the *varna mala* approach being used in the non-intervention sections. At the time of this assessment, all the sections were adequately familiar with this task based on the *akshara* chart, since it had been introduced in all the newly formed sections of Class 2 on a few occasions in the recent past.

Sample: Non-intervention sections: Class 2A– 27;   Class 2C – 28;   Total = 55

Intervention sections: Class 2B -29;   Class 2D – 26;   Total = 55

The task: An *akshara* chart was created by selecting an assortment of sub-lexical items (*aksharas*) from *varna samoohas* 1 and 2. The children were required to construct words by combining the available *aksharas* from the chart and then visualize each word meaning through a related drawing.

Scoring: It was based on the formal requirement of the class, and developed with the help of teachers. 1 mark was given for a correct word; ½ mark was deducted for a spelling error. 1 mark was given for a related drawing. Thus each word with a meaningful drawing got 2 marks. The first ten words were scored in chronological order, making the total score -20. However, only those words were marked correct which were generated through the manipulation of available sub-lexical segments from within the given akshara chart[5].

Figure: 2 Comparison of mean scores of 2 Intervention and 2 Non Intervention sections of Class 2 based on children's ability to construct meaningful words from within an *akshara chart*
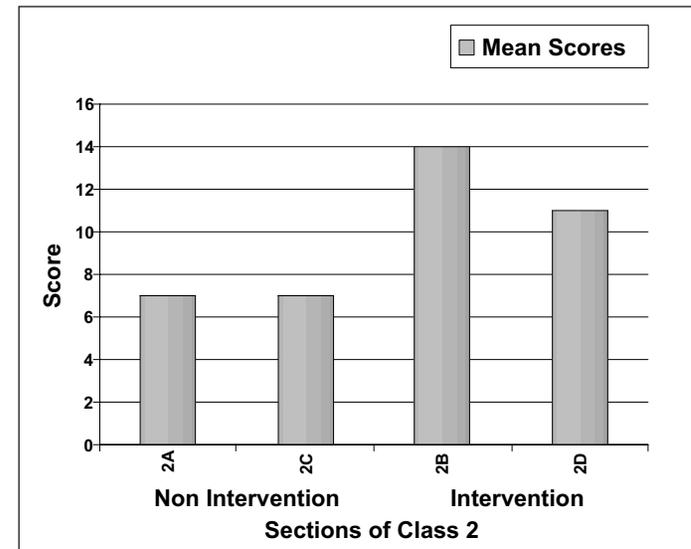
Mean scores:
2A = 7 / 20   2C = 7 / 20
2B = 14 / 20 2D = 11 / 20

Note: The results are based on a reading/writing task which was done upon entry into Class 2, but assessed performance on work which was undertaken in Class 1

Table 2: Group Statistics

Groups	N	Mean	Std. Deviation	Std. Error Mean
Intervention	55	12.95	5.20	0.70
Non-Intervention	55	7.35	3.92	0.53

From the above table we can see that the intervention group has an average score of 12.95 with a standard deviation 5.19 and non-intervention group has an average score of 7.35 with a standard deviation 3.92. The Levene's test was performed to see whether the variances are different enough to cause concern.

Table 3: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig (2-tailed)	Mean Differ-ence	Std Error Differ-nce	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	8.40	0.01	6.38	108.00	-	5.60	0.88	3.86	7.34
Equal variances not assumed			6.38	100.46	-	5.60	0.88	3.86	7.34

As the Levene test is showing low significance value for the t-test (typically less than 0.05), the result indicates that there is a significant difference between the two group means. The confidence interval for the mean difference also does not contain zero, this also indicates that the difference is significant.

Figure: 3 Sample of Children's performance on akshara chart generated from varna samooha 1 and 2

Child A

Child B

Table 4: Comparison of the performance of two children from Class 2 while constructing and visualizing words from an *Akshara* chart generated from *Varna Samoohas* 1 and 2

Child A	Child B
1. The child has written four pairs of *aksharas*. These have been presented as separated segments and not as meaningful lexical units. 2. None of the responses show the intentional manipulation of *aksharas* to construct meaningful words. 3. All the 3 drawings made by the child show a human figure, with the first one being the most detailed. There isn't a clear relationship between the drawings and the written symbols. 4. There are several familiar words available within this chart, which can be made by combining contiguous *aksharas,* for example, मामी काकी. Beginning literacy learners have been found to locate these with ease. However, Child A has not constructed any of these words, and instead in column two he has copied down the entire *akshara* chart. 5. While the child has demonstrated some awareness of *aksharas* as graphemes, there is no evidence of phonological processing or the orthographic knowledge required for constructing words. This child is therefore considered as functioning at Level 1	1. The child has successfully manipulated *aksharas* and combined them to construct familiar names of daily life objects and persons. 2. The responses show intentional manipulation of *aksharas* to form meaningful words 3. 7 out of 10 drawings provide clear pictorial representations of meanings which correspond to the written words, to provide evidence of meaningful word consrtuction. 4. In the case of 4 words, such as तीला, सीमा Child B has combined contiguous, adjacent *aksharas.* She is also combining *aksharas* from different locations in the *akshara* chart to make meaningful words such as काला ताला, thus demonstrating an ability to cognitvely process the more challenging task of combining non contiguous *aksharas* to make words. 5. A closer examination reveals three structural forms within in this child's word constructions: (i) Bi-syllabic CVCV words, which combine *aksharas* with variations in the consonants but repetitions in the secondary vowel (*matra*) for example: माला चाला (ii) Bi-syllabic CVCV words which combine *aksharas* with variations in the consonants and *matras*, for example: पीला कीला. (iii) Polysyllabic word कमल from her semantic memory, since the *akshara* chart does not provide the corresponding graphemes

The results of this micro study indicate a significant difference in the performance of children from the non-intervention and intervention classes. However what is of greater interest is the qualitative difference in the processes of constructing words While children from the intervention class were manipulating *aksharas* from the given *akshara* chart in various ways, and combining them to construct meaningful words[6], while quite a few children from the non-intervention classes have written memorized words that do not match the sub-lexical items available within the *akshara* chart. It will be important, however to investigate these differences through tracking children's performance on the *akshar* chart systematically over a period of time. Since both the intervention and non-intervention groups had been given earlier practice with *akshara* chart, and were familiar with its usage, the results seem to indicate significant differences between the intervention classes and non-intervention classes in their awareness of sub-lexical items and the process of constructing meaningful words based on manipulating these in intentional ways.

The Akshara Chart as a Literacy too.

Within ELP's classroom experience, the *Akshara* Chart was found to serve the following functions as a tool for facilitating early literacy acquisition in Hindi:

- The *Akshara* Chart helps to build initial phonological and orthographic awareness by familiarizing young readers with all sound symbol relationships within a *varan samooh.*

- It supports the process of syllabification / segmentation.

- The *Akshara* Chart permits multi level functioning through active manipulation and combination of sub-lexical items (phonemic and syllabic) to construct mono, bi and poly syllabic words with varying degrees of complexity.

- Initially children locate visually accessible words from the word walls from within the *Akshara* Chart; and once they have mastered this process the *Akshara* Chart provides the opportunity for them to construct their own words from within their semantic memories and symbolic repertoires.

- An important feature of the *Akshara* Chart is its potential to capture some of the underlying internal cognitive and linguistic processes being used by learners to construct words. This feature can make it a useful tool for tracking learner progress.

- The *Akshara* chart provides opportunity for facilitating both the grapho-phonic, as well as meaning construction processes required for meaningful reading.

- Since it is entrenched within the Indian linguistic tradition, it has social acceptability, and teachers respond positively to it

- Finally, it is easy to use and not resource intensive, and can be created on the black board.

Theoretical background

In any early literacy interventions which focus on phonological development, it is challenging for classroom pedagogies to combine considerations based on children's natural learning behaviours and capacities to make sense, explore and invent; with methodologies that equip young learners to engage adequately and efficiently with various aspects of script knowledge. Often primacy is given to imparting script knowledge based on a vast scholarship with the resulting pedagogies privileging accuracy through predefined practice routines and structured response frameworks. In young learner classrooms there is a possibility that these may take the form of teacher driven, controlled reading and writing, which focus on introducing young learners to the grapho-phonic structures and varied forms of the script through predetermined exposure to sub-lexical, lexical and text based items, and practice routines based on these. The underlying assumption is that once children have acquired script knowledge, they will be engaged effectively with it to meet their own language needs. The risk of such an approach is that since it is not embedded within contexts that are meaningful for young learners, it is unlikely to engage them actively, purposefully and meaningfully, and therefore, they are likely to respond in mechanical ways and superficial ways. The challenge therefore is that these abstract, structured routines of script knowledge are brought alive by drawing upon children's creative energies and inherent capacities to make sense. This requires the creation of classroom opportunities for meaningful and purposeful engagement with various aspects of the script, in ways which are sensitive to children. ELP found

that attention to these aspects of learning is important for ensuring that beginning readers and writers are equipped in suitable ways with the script knowledge that is required for successful and meaningful reading and writing. Based on this understanding the ELP methodologies for beginning level phonological and orthographic development have drawn upon theoretical knowledge in two focus areas. These are:

I) Identification of some distinct features of the *Devanagari script* which are of relevance to early literacy acquisition in Hindi.

II) Identification of supportive mechanisms/processes that facilitate children's natural learning processes.

I) Identification of some distinct features of the *Devanagari script*

Acknowledgement of the segmental basis of linguistic units in speech and consequently of the need to identify which linguistic unit plays a critical role in beginning reading has been a focus area of a vast body of current research in reading acquisition (See Patel 2004:35). Orthographies vary in terms of their written linguistic units. In alphabetic orthographies, the phoneme, which is the minimal unit of potentially meaningful sound within the orthography, is used as the basic written unit. In logographic orthographies the visual notation is the smallest unit, representing either a morpheme or a word. Finally, there are orthographies where the basic written units are not only phonemes but also syllables, or sub-lexical units which contain at least a single vowel. *Devanagari*, or the script used for writing in Hindi, belongs to this category (Nag-Arulmani 2003). While explaining some of the complexities of the *Devanagari* script in a manual for teachers of adult literacy learners, Butt (1967: 42) explains that the Hindi *varnamala* is not an alphabet, but is in "fact a marvelously concise and well arranged index to a vast *"syllabary",* which makes possible a written symbol for each spoken sound in Hindi".

Research on phonological development indicates that skills such as awareness of the different sound units in a word, being able to manipulate these sound units and being able to segment a word into finer levels of sub lexical units, are all critical phonological skills that promote reading acquisition (Goswami and Bryant 1990 cited in Nag-Arulmani 2003:243). Patel (ibid: 79) cites research to arrive at the conclusion that syllabic awareness appears to be present in young learners by the time they are four years olds, and that the syllable precedes the phoneme in phonological awareness. In fact, he cites research on pre readers at the early ages of two which shows their sensitivity to onsets and rimes but not to phonemes, in response to nursery rhymes. What then are the implications of these research findings for the beginning reading and writing within the specific context of Indian orthographies? Nag - Arulmani (2003) notes that since the predominant linguistic unit within most Indian languages is the syllabograph and not the alphabet, an area of research interest has been whether the pattern of processing is different in these languages when compared with alphabetic languages. She cites other research to support the conclusion arrived at within her own research, that in the case of alpha-syllabaries in which print is represented at the syllable level but includes specific phoneme markers, the unique phonology to orthography mapping in the early stages of literacy development favours larger sub- lexical units. These findings have been further supported by her later research (Nag 2007) which found a strong association between syllable awareness and reading scores in Kannada across both grades 1 and 2. Karanth (2003, cited in Vasanta 2007:222) has also highlighted the important role played by *akshara* knowledge for beginning reading and spelling within the alpha-syllabaries of Telegu and Kannada. Traditional approaches to beginning reading and writing in Hindi and some other Indian languages have favoured larger sub-lexical units, such as the teaching practices based on the use of the *Barakhadi* which has been mentioned in the writings of Giju Bhai (1997); or the documentation of recitation practices within nineteenth century classrooms (Dharampal 1983). Based on the understanding that has developed in the research cited above, coupled with the experience of working with beginning readers and writers in Hindi classrooms, three features of the *Devanagari* script have been identified as important focal areas for phonological development within the ELP *varna samooha* approach. These are:

a) the *akshara*,

b) *matra* in terms of its implications for word segmentation

c) the process of ligaturing.

a) **The *akshara*:** The linguistic unit that has been given significance within the *varna samooha* approach is the *akshara.* The rules that govern the composition of an *aksharas* are however complex.

"Following the available scholarship, the creators of Brahmi[7] divided the syllable into two units, the first consonant + vowel body and the following consonant. The first part consisting of the consonant + vowel body in the syllable structure was taken as the orthographic unit 'akshara'. The following consonant was allowed either an akshara status or was moved to the onset of the next consonant + vowel. An akshara must therefore consist solely of a vowel or a vowel preceded by one or more consonants, however a single consonant, is also accorded the status an akshara" (Patel 2004:47).

A special feature of the *Devanagari* script is that each consonant exists in combination with an inherent vowel or schwa. (अ), for example न = न + अ and therefore each consonant is considered to be a syllabograph or *akshara*. Each *akshara* can be deconstructed into its constituent phonemes (*varnas*), which are divided into two categories; vowel phonemes (*swars*) and consonant phonemes (*vyanjans*). Thus embedded in each *akshara* is more than one phoneme/ grapheme unit. *Aksharas* can encode cv, ccv, cccv, v, vv, cvv, ccvv and cccvv and c (i.e. a consonant with an inherent vowel). An important aspect of *akshara* formation is that all *aksharas* end in vowels.

b) ***Matra* and its implication for the process of word segmentation[7]:** The *akshara* as an orthographic unit consists of a syllabic quantity unit called *matra,* with its Latin equivalent in the term *mora.* Within alphabets, syllables which end with a consonant or a consonant cluster are considered heavy in quantity, for example cvc or vc are heavy in quantity. On the other hand, syllables with short vowels, with or without preceding consonant or consonant clusters, and with no consonant cluster at the end are considered light in quantity. The short vowel is the basic unit, which allows the long vowel or the diphthong two units. Depending upon the length, a consonant after the vowel nucleus can have a whole *matra.* When it does not have the quantity for a whole *matra* it is integrated into the next onset, except at the end of words. Accordingly an *akshara* can bear one or two *matra* values as in /ma / or /drau /, respectively.

One *matra*: cv, ccv, cccv, v and c (a post vocalic, long consonant)

Two *matras*: cvv, ccvv, cccvv, vv (vv stands for a long vowel or diphthong)

Consonants which approximate the *matra* that is the duration value of a short vowel form *aksharas*, while other consonants move on to the following syllables in the word, for example see the *akshara* formations for the words '*matra*' or '*bakri*' in the chart given below.

Table 5:

words	Syllables	aksharas
Maya	cvv cvv	cvv cvv
matra	cvvc cvv	cvv ccvv
bakri	cvc cv	cv c cv

Source: Patel (2004: 25)

This chart above is based on Gujrati words. It is useful illustrating the implications that factors such as *matra* values have for the placement of internal consonants within the process of *akshara* formation and also highlights the corresponding distinctiveness between syllables and *aksharas.* Clearly there are levels of complexities which are way beyond the access of primary school teachers; however what seems to be important for the ELP intervention is the need for sensitivity to the differences between syllables as conceptualized within alphabets and *aksharas* as conceptualized within the Devanagari alphasyallbaries. These have important implications for the process of word segmentation undertaken through clapping to the beats of different words (*shabd taali*). While clapping to the natural beats of words, provides a useful scaffolding for sensitizing young beginning level learners to the sound segments within cvcv combinations, the above chart indicates that such word clapping is likely to confuse them when dealing with more complex polysyllabic words. Teachers need to be made aware of the limitations of word clapping and of the corresponding advantage of exposing young learners to more complex words through visually accessible word walls or

displayed print, and recitations and oral activities based on these.

c) **Patterns of ligaturing:** Nag-Arulmani (2003), provides a useful discussion on the ligatured vowel as the additional orthographic feature that makes each syllabograph a unique symbol for a particular speech sound. The visuo-spatial topography of *akshara* knowledge entails learning the rules of ligaturing, since the secondary forms of vowels (commonly called *matras*) may be added at the top, bottom, at the left or the right. This is a dimension of learning not inherent in the orthography of an alphabet system. The pattern of ligaturing of the secondary vowel to a consonant is systematic and follows regular position rules Consonants may also have a primary and a secondary form. Within the primary form which is used in cv clusters, the consonant in the primary form occupies a predominant position in the syllabograph. When the consonant is part of a consonant cluster (ccv and cccv), its secondary form is used. The number of consonant that have a secondary form differs among different Indian languages. Like the vowels the secondary consonants follow specific ligaturing rules

Within the ELP intervention the mastery of cv derivations along with the inherent rules for ligaturing, by young learners is envisaged through exposure to their graphic representations within *akshara* charts, as well as through displayed written words within word walls and displayed texts. Exposure to complex consonant cluster, where the secondary form of the consonant may be used, is delayed until the later classes. Children pick up the rich symbol system of ccv and cccv clusters, as well as cv and cvv (diphthongs) clusters through active engagement with their visually accessible forms in print rich classes. As mentioned, these are made available through displayed texts or words. Word walls and word activities with a special focus on some particular aspects of ligaturing are also featured from time to time, to scaffold learning and to actively engage children with specific visio-spatial topographies of sub-lexical segments.

II) Identifying mechanisms to support children's learning processes

a) **Use of rhymes:** Within the Indian context the cultural ecology has provided children with rich traditions of stories and rhymes and play-verse which have nurtured a universe of spontaneous oral language explorations within homes and communities for centuries, and have existed as intrinsic forms within which young children grow up (Talib 2007; Chatterjee 1999). Patel (2004) draws attention to the Indian cultural heritage with its rich traditions of oral recitation which have fostered children's early phonological and their awareness of the *akshara* as a prevalent timing unit in oral learning. He claims this to be the reason why traditionally, rhymes, play–verse or clapping games and oral recitations have been an inherent language resource within child rearing practices and within young learner classrooms in the Indian context over many centuries. Such speech play has helped children young infants get varied exposure to prosodic patterns, which depend upon well marked syllable boundaries and timing. This practice was enhanced and systematised in schools where children are required to memorise poems and arithmetic tables, and recite them regualrly (Dharampal 1983). While traditional folk songs, lullabies and some child verse in comtemporary India, continue to follow the ancient metrical tradition which accentuates the *akshara* sound patterns; however these practices are being fast eroded by the new sound patterns of the technologically mediated and pervasive popular cultures, wthin which young children grow up to a profusion of sounds and sound patterns. Therefore, there is a need that exposure to simple rhythmic sound patterns are consciously planned for within young leanrer classrooms. The rhymes and small poems which were developed within the *varna samooha* approach, intend to capitalize on this familiar cultural form, although within the severe constraints of the restricted grapho-phonic and semantic resources available within each *varna samoohas.* These rhymes attempt to provide scaffolding for phonological processing and for enhancing engagement with written texts, through a culturally familiar oral form that is sensitive to children's' natural learning behaviours.

b) **Visualizing word meaning through drawings**: During play and other social interactions, young children's inner worlds and symbolisms are brought to life through their enactments, visualizations or other forms of communication and interpretation of 'signs' which stand for or represent something else. These have been viewed as precursors to reading and writing, within which the underpinnings of the sophisticated and abstract levels of understanding, required for literacy are developed (Bruner 1984; Vygotsky 1978). In recent research 'drawing' has been viewed as an important meaning making activity. This research has challenged classroom practices that privilege language-dependent modes of representation within which children are restricted to using one sign system at a time, over other modes. Such classroom practices are considered contrary to young children's natural predisposition to move between art, music, movement, drama, mathematic and language as ways to think about the world. Based on this thinking, Kendrick (2004) uses young children's drawings about reading and writing as an innovative way of investigating their perceptions and understandings of literacy across the broad contexts of their lives. Similarly (2008) demonstrates how drawing and play can be used to support children's competence in interpreting the visual mode as well as for using it to convey meaning. Susan Wright (2007) uses 'drawing telling' as a term to describe the children's use of a range of signs and channels of communication which are bodily based, iconic and expressive. This study highlights the intertextual, multifaceted and complex nature of young children's meaning making processes, through their interpretations of 'signs' which stand for or represent something else.

The researches cited above represent a body of current thinking which serves to provide linkages between young children's depictions, narrations, enactments, play and various forms of artistic expressions with their early literacy development. On a similar note, the ELP intervention has attempted to capitalize on the Vygotskian and other theoretical perspectives that view children's drawing as an important meaning making process, which provides access to aspects of children's hidden inner worlds and mental processing. By providing opportunities to children to "draw their own words"

which they have either constructed on the basis of initial alphabet sounds or by combining available *aksharas* from within an *akshara* chart; in both these instances the ELP interventions aims to facilitate meaning constructions that are specific to each child's unique experience. This is in fact, considered by ELP to be an essential and important component of the process of meaningful early literacy acquisition. ELP therefore lays great emphasis on "word drawings" during training sessions and other informal interactions with teachers, so as to communicate to them the importance of this component of the intervention and to ensure that it is taken up seriously by them within the beginner classrooms.

B. Development of Print Rich Environments within young learner Hindi classrooms

Influenced by the theoretical perspectives which have been outlined in Part 1, print rich classes have been visualized by ELP as settings for catalyzing interactive and inclusive literacy practices within young learner classrooms, so as to encourage each learner in the class to engage actively with print regardless of the differences in home backgrounds. Current practice within schools suggests that mediation of curricular learning material is an important component in a child's learning to read and write in school. However, within the diversity that exists in MCD school classrooms, it is useful to distinguish between the following two possible complementary learning systems in the classroom, namely: a) the tutorial system or the inter-subjective space between the adult teacher and the child learner or between the child learners themselves and b) the personal learning system or the intra-psychic constructions of an individual child[9]. The ELP intervention has aimed to develop print rich classrooms which acknowledge the need for both learning systems to coexist in distinct, yet mutually supportive ways, so that in addition to print related teacher or child initiated based interactions known as "literacy practices" within the intervention, children also feel free to bring in their real world and language experiences into the classroom, and provide a peep into constructions of reading-writing, which are intra psychic and based on their inner worlds and symbolic constructions. For example, a variety of planned interactions with children's literature, which is an essential part of the print rich classroom, have been found to be powerful tools for generating subjective spoken and written responses to provide

glimpses into the inner worlds and thought processes of individual children in the classroom. As mentioned earlier on, in Part 1 the New Literacy Studies have highlighted the 'pedagogization of literacy practices" outside of school, and the fact that school based literacy practice has begun to dominate non-school spheres, and influence literacy practices in social setting and children's' homes. Within similar scenarios that exist inside the classrooms as well, ELP found it was vital to provide alternate literacy sites for children to realise that reading and writing are not just related to the curriculum but have deep connections with their lived experiences and inner worlds, and may, in fact, be considered as the written forms of their spoken language (see Vygotsky 1978: 112-119).

Within classrooms in which children are from diverse socio-cultural contexts, there are differences in the internal constructions and intra psychic representations that constitute a child's symbolic world. Concomitantly, this requires that opportunities for allowing diverse and meaningful engagement with print are provided to young learners within classrooms, and capacity building sessions for activating teacher agency towards designing and mediating these, are planned for. These print rich classroom environments are grounded in the belief that children's background knowledge and their entire repertoire of life experience, determines the way they can interact with literacy. When a teacher takes the responsibility and shows the willingness to 'know' the children in her class (i.e. who they are, what interests them, what they enjoy, what are their personal stories), and when she commits to tap into and to respect the cultural worlds of children, literacy becomes a medium through which children can interpret their real world experiences. Conceptualizing literacy as a social and cultural practice allows new ways of engaging with literacy within school classrooms, in ways that provide space for children to bring in their real lives and identities into the classroom. It provides opportunity to understand and use the experiences of children to develop literacy environments that celebrate children's imagination, creativity, and genuine motivation to express their ideas. In addition, understanding literacy as a social practice means that learning literacy occurs through social interactions and relationships with others. This implies that role of the educator in literacy learning widens, as the classroom culture designed by teachers' influences how children conceptualize literacy. Teachers are not only bearers of knowledge; rather they become keen observers of learning and partners in the socially-driven and meaningful processes of literacy learning.

Based on the above understanding Print Rich Classrooms have been conceptualized by ELP as visually accessible settings/interactive spaces/print elements, within a classroom, with the following objectives:

a) to immerse the young learners within a meaningful and engaging print environment.

b) to facilitate a variety of authentic print based reading and writing practices

c) to facilitate authentic written communication/social interactions within the class

d) to provide scaffolding for curricular content and processes

e) to provide for inter and intra-subjective written or pictorial constructions which are either mediated by the adult or by the children themselves

Such classrooms are therefore conceptualized as bridges between the language use and literacy practices that children bring with them from home (the home discourse), and those of the school and classroom (the school discourse). In other words space is provided for children to bring in their own meanings while they negotiate the shared meanings that are generated within curricular transactions. By viewing print rich classes as buffer zones between the discourse patterns of children's home and the discourse patterns of school, ELP intends to try and put into practice some of the theoretical ideas outlined in Part 1, for facilitating meaningful literacy acquisition in mainstream classrooms.

Some print elements and related classroom processes

The unfolding of the Print rich classroom environment within the MCD School classrooms was initially slow. It challenges the notions of a traditional teacher driven class, and it therefore took a fair amount of perseverance to communicate the idea successfully to some teachers. The children's enthusiasm and responses also proved to be effective towards roping in a few motivated teachers. The actual classroom environment

developed gradually through the course of the academic year, and in response to learners' needs and behaviours. For example, in one classroom children's consistent inability to decode and engage meaningfully with written words led to the setting up of visually accessible word walls, which further generated a host of word activities and games, based on these word walls. The children responded enthusiastically to these, and soon these also became a part and parcel of their free time games. Such social interactions based on displayed word walls provided non-threatening and unobtrusive scaffolding for word recognition, in ways that were interesting and enjoyable for the children, and which also generated an active and interactive learning climate in the classroom. Although these activities were initially mediated by the class teacher, they slowly got taken over by the children themselves. Word walls thus became an important component of the Print Rich classroom environment in other classes as well. Some other print elements that have been used by ELP to generate print rich classrooms include the following:

Displayed children's writings with clear captions: The teacher plays an important role in helping children to share what they have written; by directing the children's interest; or by generating discussion based on some of the children's writings. This is important, as it is not enough to just display the writings, but children need to be motivated to actively engage with each others writngs.

Interactive attendance charts: The ELP intervention capitalizes on some activities which occur almost like rituals in every class, the daily marking of children's' attendance being one of these. Instead of the usual registers, attendance charts are placed on the walls, and these are filled in each morning by individual children themselves to mark their attendance. Each morning, in one class the teacher began to write a short sentence about herself in the space provided against her name on the attendance chart; thus modeling to the young learners, who responded very quickly by attempting to write similar sentences about themselves. They wrote about small but real things, such as: "Today I am late" or "Today I had tea". Young learners, who were unable to write, drew pictures, wrote words or got their friends to help them write. Through these charts the children learned to recognize the written forms of each others names, and also became interested in reading what their

friends had written. Attendance charts thus became centers of "authentic literacy practices" in the classroom, which though initially mediated by the teachers, gradually got taken over by the children themselves. In classrooms with a small number of children, this became a popular activity. In larger classes managerial practicalities made it difficult to implement, and it was found to be too time consuming.

A morning message or shared writing: This simple but effective form of daily written communication was initiated by Marie Clay as a shared writing activity[10]. The teacher writes a short, simple morning message regularly, the first thing in the morning, every day in a specified corner of the black board. Through this message some little piece of information which is interesting and meaningful for children is shared, such as "Today I saw a little yellow flower". In some classes we found the children waiting eagerly for this message each morning, and some of them actually rush to the board, once the teacher has written her message. The message remains through the day. It has been used effectively in one class to slowly initiate a hub of written communication which gradually draws the children into interacting with each other and with their teacher through this written form.

At a later stage with more advanced readers and writers this idea is introduced to the children in the form of shared writing. Within this activity discussion is initiated with the children on a topic which is within their experience. After the discussion the children assist the teacher on writing a paragraph on the blackboard. Each sentence is discussed and then dictated by the children and written in their words by the teacher, even if some of these words or sentences are in their home languages. This is important for the children to feel a sense of ownership of the writing. The idea involves teachers and students working together to write a text based on an experience that they have had. The teacher also uses this opportunity to demonstrate her own writing process by sharing aloud as she writes. Thus she points out to the children that she is writing from left to right and how she is forming letters or spelling words or using punctuation, so as to include them in this process. Once complete each child copies the piece of writing or it is copied onto a chart and displayed for the whole class. Shared writing has been found very popular within the ELP Phase 2 schools in rural Rajasthan.

A postbox in the classroom: Formats for writing letters are provided on the board. Children use this to write letters freely to each other, to their teachers, even to characters in a story or thank you notes to trees in the garden and so on. They post these in the class postbox. This has been a popular activity, which at times has been linked to the lessons in the textbook. From time to time the teacher displays some letters and her replies to them. Children then read some of these letters. In one class this activity lead to an exchange of letters between children in two different classes. In one class through a class discussion minimum norms were set for selecting letters to be displayed, based on neatness etc. This set up a spontaneous process of self evaluation. The possibilities of print based interactions that a post box in the class generates are immense; however, they require an imaginative and interested teacher to enthuse the children into this form of written interaction.

Calendar based written activities: These were used in one classroom for initiating print interactions by providing a chart with written questions based on the calendar and spaces for children's written responses. These are read and responded to by the children after locating the answers from the calendar, thus setting up a hub of calendar based literacy practices. Questions are changed regularly.

Spaces for free writing; display boards for children's writing and drawings or for displaying interesting pictures or texts, are some other important elements of the print rich classroom. All these elements however are of no use without the active engagement of children. For this purpose it is important that the print and pictorial elements are visually and physically accessible to the children, with bold captions and placed at an appropriate height. It is also important to change these regularly from time to time. Within resource poor situations, ELP has at times had to innovate and use cloth sheets or sacking hung from a string as makeshift display boards. Clipping written material on to strings which are stretched across the classroom wall is another simple, low cost way that has been used for displaying print elements. The print environment in the classroom also attempts to scaffold curricular content through word walls, displayed writings and related texts or visuals, so that these are visually accessible to children and can support successful engagement with curricular content.

Special focus print areas in the classroom

In addition to the above print elements special focus areas are set up in the print rich classrooms. These include:

Word Walls: these have been introduced as word pocket charts; words pasted on charts, or cloth or sacking and in some cases words written with chalk on the wall. Through the course of the intervention the selection of three categories of words were found useful for each class.

a) Word walls based on the vocabulary from the textbooks. These may be some specific category of words, or words with distinct script features such as conjunct consonants or vowel diphthongs etc.

b) Word walls with simple CVCV words to address the needs of children at level 1 i.e. children who are still in the process of acquiring alphabet recognition and sound-symbol correspondence. Such word walls ensure the participation of Level 1 children in classroom word activities, and help to build their confidence levels.

c) Word walls consisting of words from the children's real world experiences and languages. These are considered important for enriching the classroom interactions, as well as for providing acceptance of the children's real worlds and diverse identities within the classroom.

Games, activities and worksheets have been developed by ELP and the teachers so that the children actively engage with these written words and get familiar with them though usage. New words are introduced regularly. The word walls have received a positive response from both the teachers and children. They provide useful visual support for writing, and also scaffold curriculum based learning.

A riddle corner: riddles entice children to look for answers and children were found to happily engage with the riddle corner. Children grasp the simple structure of riddles quickly, and therefore the simple structures written on the blackboard provided scaffolding for those who are new to this form. This helped them to actively engage with this enjoyable form of question – answer interactions. Initially riddles based on the textbook lessons and were placed by the teachers in the riddle corner, along with a response chart for the children's answers. After some time the children were provided with a simple

structure and encouraged to make their own riddles. This was a popular activity and the children wrote a variety of riddles. Some of these have appeared in their dialects or are linked to traditional forms. In this way the children's natural language and cultures found some space in the classroom. The children's spellings and hand writings were not corrected. This creates an initial resistance from some teachers, and it took a while for the teachers to realize the value of such free writings, especially since we found that slowly a few children who had never participated in the class, now hesitating began to risk the writing of riddles. This was indeed a moment of triumph for them, for which it had been essential for them to experience acceptance in the classroom. For ELP these moments have confirmed the potential that such non threatening print based spaces have for drawing out children, who are otherwise afraid to risk failure. The riddle corner particularly was found to motivate a few children who did not normally participate in classroom activities. ELP proposes to compile some of the children's riddles into a children's riddle book.

A poem corner: Poems are a popular form with children, and ELP found that most children in the classroom really enjoyed the poem corner. A selection of interesting poems is put up in the poem corner as photocopied poem posters (A3 size), for the children to read on their own, or recite with the teacher. The children have also been encouraged to write their own poems. Since this was a new activity, it was scaffolded by providing rhyming words or giving the children structured frameworks to write their poems in. This activity has generated a large number of poems. For example, the structure of a poem called *"Man Karta Hai"* (I wish…), which had been displayed in the poem corner, was used to get children to write their own poems, within which they have spontaneously captured their hopes and dreams. Many of these poems reflect little longings that are real for their young writers, such as "I wish I could go to sleep in my mother's lap" or" I wish I could play with other children". Those children who cannot write sentences are encouraged to draw and then use the poem poster to write a sentence or two. There is a special quality in some of these little poems, which reflect the inner voices of their young writers. However many of these do not meet the classroom norms of neatness and spellings. The need for some free expression, without a focus on the mechanics of writings, has been a contentious area with some teachers, and requires systemic support.

The use of children's literature in the print rich classroom

Stories have a deep bond with children. They touch each child's lived experience and real and imaginary worlds, and provide glimpses of children's inner worlds. Stories therefore are an integral part of the print rich classroom. A story reading period was set up in all ELP class sections. This has been popular with the children. The children are provided with opportunities to read, share, listen and respond to stories and poems; to write their own stories, poems and narratives; to share and respond to each others displayed stories and poems. All of these are seen as attempts towards setting up a shared and meaningful print culture in the class. In Class 2 in response to *"Aam ki Kahani"*, an action packed picture book in which various characters try and get hold of some mangoes, the conversations that followed the book sharing, lead to a sharing of the children's experiences in their villages. Children talked about the things they grow; about carrying lunch to the fields for their parents; taking their goats to graze, or climbing trees and so on. These real experiences were then captured in the little narratives that they have written and drawn. Similarly, a Class 3 lesson on "Ghosts" generated an animated sharing of fears and how the children deal with these. The writings and drawings that followed these conversations have captured some of these fears; for one child it is the fear of wild animals; for another it is the dark, or ghosts or robbers. One child has written about being afraid of his mother's anger, another has written about being afraid of her teachers. These and other similar writings capture the inner worlds of children. They are not contrived. The ELP interventions have generated a range of such writing through active and meaningful engagement with the print or storybooks made available inside classrooms. A reader's response chart is also put up in each class, in which the children write the title of the story they have read and anything else they would like to share about the story. This took a while to set up, and initially the children were resistant, but later it became a popular activity.

What has been the most revealing for ELP however is the potential that such print rich classroom environments have for engaging children with purposeful reading and writing, and for building up a print culture in the class. The intention has been to design interactive spaces and specific print elements for free and varied interactions with written text in ways which are non

threatening, non judgmental and allow for natural explorations of written language, such as invented spellings, with the focus shifting from the mechanics of writing conventions and accuracy of spellings, to active engagement and usage by the children. These are intended as spaces within which there is room for the children to read and write freely, without being afraid to make errors, and to gradually acquire confidence in the usage of written forms and move towards acquiring fluency and accuracy to meet the requirements of the curriculum. The idea is that the more a child uses print in meaningful and authentic ways; the better will she learn to read and write. In other words the effort is to enable children to appropriate a culture of print and through this arrive at the accurate forms, structures and conventions of writing over time.

Response to the ELP interventions

The ELP project was initially conceptualized as an intervention with a supportive research component, designed to map the unfolding of the intervention within young learner Hindi classrooms. However, a dynamic field and inflexible situational variables resulted in challenges such as initial resistance from teachers, frequently changing classroom compositions, rigid curricular frameworks and tightly controlled inspection routines. These compelled ELP to curtail the research. Establishing the intervention proved to be challenging. Within Class 1 it had to coexist with the existing, conflicting curriculum processes. In Classes 2 and 3 in had to confront the resistance from teachers and school inspectors, for whom the written explorations generated by the ELP print rich classrooms defied existing norms and were not considered finished end products which could be displayed on the classroom walls. Countering these positions with convincing arguments was often not easy. However, if the volume of children's writings and written responses within reader's response charts, riddle charts, and other print elements, is anything to go by, then it would be appropriate to say that these print rich classes and supportive methodologies generated enthusiastic responses from amongst the young learners. Transitions over time are visible in many of the children's writings, indicating a qualitative shift from the more controlled teacher directed writing, to writing that captures individual experiences, thoughts and feelings and voices. A systematic analysis of some of this writing is proposed by ELP in the near future. It would be presumptuous to claim that the ELP intervention was entirely responsible for this shift, and to not acknowledge the important role of curricular transactions and the efforts of teachers. Nevertheless, the children's responses have given ELP the courage to acknowledge that although spontaneous learner initiated "literacy practices" were limited in their occurrences, the print rich classrooms proved to be important sites for catalyzing some meaningful and purposeful engagements with reading and writing within classrooms.

The more challenging aspect of the intervention has been the process of activating of teacher agency for mediating the intervention. Whilst ELP was successful in motivating some teachers to set up and mediate print elements in their classes, they have needed the constant support of the ELP team. There were others however, who remained reluctant to participate in the ELP intervention. This reluctance on the part of teachers seemed to be mainly based on the fact that the ELP intervention was not entrenched within the prevailing school system, and mechanisms to locate it within the existing monitoring and evaluation frameworks, or for activating teacher agency through regular review and planning meetings were not available; therefore engagement with the ELP intervention was initially viewed by teachers with suspicion and at a later stage as additional effort. Secondly, since the intervention was not predetermined and evolved through a close interface with classroom practices, there was an additional disadvantage that support material was not readily available and had to be prepared with teachers.

Despite these challenges there have been little rays of hope as well. Some of ELP's strongest teacher opponents became supporters, when they experienced the tangible forward movement of those children whom they had almost given up on. Although such cases were few, they have acted as propellants for this exploratory effort. ELP was also involved in conducting in-service teacher training workshops for approximately 600 MCD School teachers from five zones of Delhi, under the aegis of Sarva Shiksha Abhiyan. ELP's classroom interventions were shared during these sessions through the screening of short documentary films which have tried to capture some of the classroom processes; and also through the sharing of children's writings which were generated through the course of the ELP intervention. In the post training written feedback, 93% of the

teachers have expressed a desire to take up these approaches within their classrooms; for which they have demanded systemic support and supportive resource material. Based on this demand ELP has subsequently developed a resource pack to support these classrooms based interventions

Concluding comments

While the ELP intervention generated a fair degree of enthusiastic engagement amongst young learners, this journey is ridden with challenges. It means bringing in radical shifts into an ossified, monolithic system, within which the behaviourist paradigm of teacher driven classrooms has become deeply entrenched. Further, within resource poor situations, simple practicalities like putting up displays, can become daunting challenges. The need for urgent changes in existing classroom processes has found constant reverberations within the focus on "quality issues" that has dominated the discourse on Elementary Education within State Education Policies, for some time. Through a comprehensive historical review of the quality discourse Kumar and Sarangapani (2004) have reinforced the indispensability of philosophical resources for educational planning and reform, while at the same time pointing out the significance of engaging with the complex inner worlds of teaching practices which are located within the 'black box' of the school and classroom. ELP's exploratory effort has reinforced this belief, namely, that if we want to regard schools as equitable places where all children will learn, regardless of their home circumstances, then it is vital to build informed understandings of the specific socio-cultural contexts within which learning occurs. This requires sustained engagement with the complexities inside mainstream school classrooms, so that teachers can be supported with the knowledge and tools of cultural appreciation that are grounded in classroom realties and which will advance the possibilities of generating inclusive and purposeful classroom practices based on cultivating a deep respect for the democratic and just classroom learning communities. This is the vision that has been imagined and is being explored through these modest interventions. Through persistent efforts, ELP was fortunate to be rewarded with the support of a few teachers within the intervention schools, and was able to actively involve them in the process of setting up and mediating, active and meaningful print rich classrooms. This

has proved to be an enriching experience, some of which has been documented by ELP in a short film. However, systemic mechanisms for activating teacher agency and for generating support are required if active and purposeful literacy learning classroom environments are to be developed and sustained within young learner classrooms.

Notes

[1] The Devanagari Script is an alpha-syllabary. The alpha syllabaries or syllabic alphabets are a group of orthographies which unlike alphabets or logo graphic scripts represent sounds at the syllable level and also have distinctive features to indicate sub-syllabic information. The distinct feature is that each consonant has an inherent vowel or schwa. The absence of the schwa is indicated by a subscript called *halant* under the consonant. Thus unlike most languages in which the basic unit of the writing system is a single character or alphabet, the Devanagari script uses an alpha-syllable (*varnas*) as its basic unit

[2] Within the *varna samooha* approach the term alphabet has been used as synonymous with alpha-syllable.

[3] For a comprehensive discussion of these approaches to early reading see Southgate, V; Arnold, H and Johnson, S (1983) Extending Beginning Reading. Heinemann Educational Books for the School Council: 26-45

[4] In some cases a child was not able to write the conventional spelling due to unavailability of a particular sub lexical item within the *akshara* chart, and therefore made related errors. For example, a child constructed the word चापाला for चपल and the related drawing shows a *'chappal'* (footwear). ELP is of the view that the child has constructed the word within the constraints imposed by the restricted availability of sub-lexical items within an *akshara* chart and the spelling errors are not on account of limitations in phonological processing within the child; especially since the child has represented its meaning clearly through the related drawing. In such cases the word the child has been given the benefit of doubt and been given a mark.

[5] A micro analysis undertaken to track performance of 10 Level 1 children from an ELP intervention class over the course of the ELP intervention within one academic year, has captured the transition in the children process of word constructions, from the earlier randomized processes which lacked evidence of sound – symbol mappings, to those based on the intentional combining of aksharas to form meaningful words.

[6] Brahmi is considered to be amongst the first major scripts, with descendants in host of South Asian languages. The linguistic design of the scripts used by most of the Indo- Aryan and Dravidian languages, including Devanagari has its roots in this ancient script.

[7] This distinction has been introduced by McNaughton (1995) in his book, Patterns of Emergent Literacy, cited in Smith, J. and Elley, W. (1997: 22-24.), How Children Learn to Write, Paul Chapman Publishing Ltd

[8] These ideas were initiated by Marie Clay in the nineties as a component of the Reading Recovery Programme in New Zealand, and were based on the use of a combination of modeled and shared writing.

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