# Teaching and Learning the Script

## Early Literacy Initiative Resource Book 4



**Editors**
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Shuchi Sinha
Harshita V. Das
Akhila Pydah

early literacy initiative

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This Resource Book is part of a series brought out by the Early Literacy Initiative anchored by the
Azim Premji School of Education at the Tata Institute of Social Sciences, Hyderabad.

# Introduction

That Indian children are not learning to read or write proficiently is fairly widely known. The ASER annual reports document this dismal picture year after year—with little improvement over time. "Fixing" early literacy is not easy. The solutions don't lie in simplistically finding the "right methods," or teaching the "right skills." Early literacy and language learning in India occur in complex landscapes characterised by rich linguistic diversity, and riddled with deep socioeconomic divides, poor teacher education, and a somewhat poorly functioning educational system. Debates related to issues such as medium of instruction, language planning and policy making abound. In this context, there is an urgent need to facilitate conversations around important issues as well as to contribute to knowledge creation and dissemination.

The Early Literacy Initiative (ELI) is a project anchored by the Azim Premji School of Education at the Tata Institute of Social Sciences, Hyderabad with a view to address the need for building awareness and knowledge related to early language and literacy in India. The initiative is funded by the Tata Trusts.

ELI undertook two kinds of print-based initiatives to address the need for disseminating knowledge in a usable form for practitioners – the creation and distribution of thematic blogs and practitioner briefs. This work is available at the ELI website: http://eli.tiss.edu/, and is also compiled into ELI Resource Books.

**Thematic Blogs.** Five themes were identified as centrally relevant to the domain of early language and literacy in India (see below). We invited original blog pieces related to each theme from a variety of stakeholders working in the domain—from practitioners to academics. Members of the ELI team also wrote pieces for these themes. Care was taken to address various aspects of each theme through the invited pieces. While putting together the themes, the ELI team created brief annotated bibliographies for each. Talks, presentations, essays and opinion pieces by ELI team members related to each theme were also collected. A total of 45 original blog pieces and approximately 150 annotations were created across the five themes and are represented in the five ELI Resource Books.

The five books are:

ELI Resource Book 1. Multilingual Education in India

ELI Resource Book 2. Children's Literature

ELI Resource Book 3. Children's Writing

**ELI Resource Book 4. Teaching and Learning the Script (this book)**

ELI Resource Book 5. Comprehension

**Practitioner Briefs.** The blog pieces, while written in an easy-to-access style, are more focused on building perspectives. On the other hand, the practitioner briefs are a collection of "How-tos" for people working in the field. The briefs draw upon perspectives to help practitioners imagine relevant practices on the ground. A total of 21 briefs are compiled into seven thematic booklets. Each thematic booklet consists of a set of three to four briefs.

While both blog pieces and practitioner briefs were written originally in English, the intent is to eventually translate them into regional languages to make them widely available to practitioners. We hope that this consolidation of original and accessible writings on early language and literacy for Indian contexts will be of help in your work!
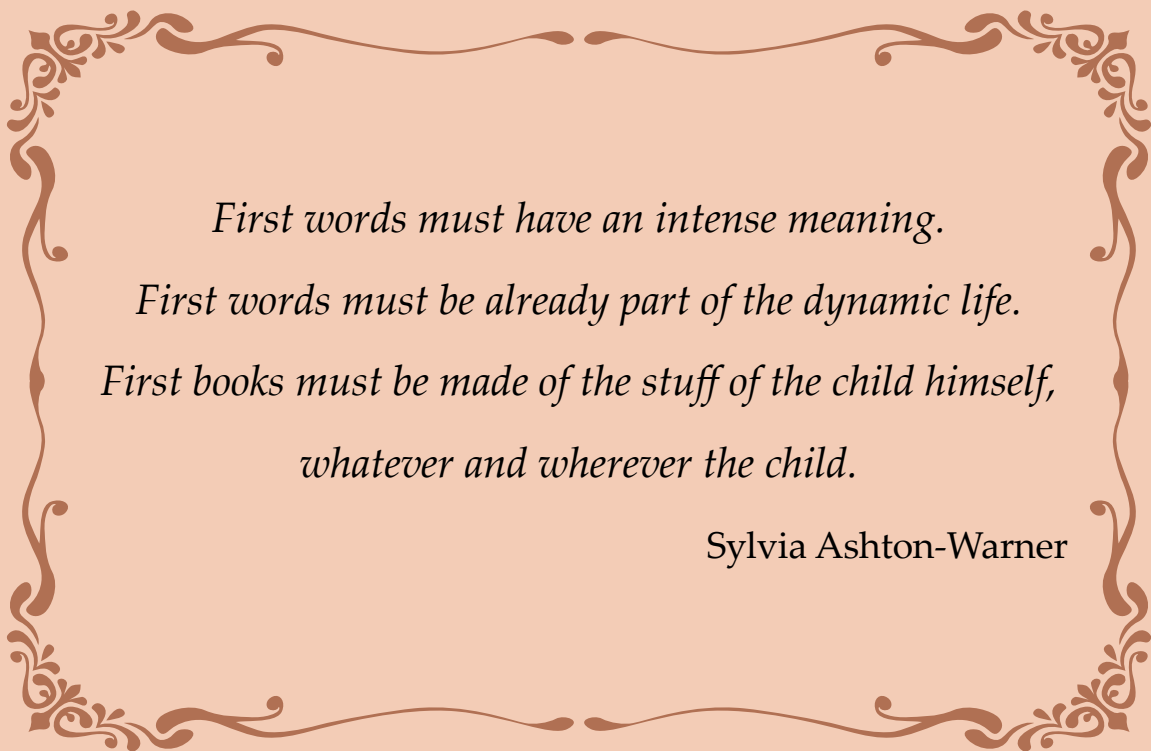
*First words must have an intense meaning.*

*First words must be already part of the dynamic life.*

*First books must be made of the stuff of the child himself,*

*whatever and wherever the child.*

Sylvia Ashton-Warner

**Source:** Ashton-Warner, S. (1986). *Teacher*. New York, NY: Touchstone.

# Contents

# BLOG PIECES

# Introduction to Teaching and Learning the Script

## Shailaja Menon

Shailaja Menon highlights various aspects of the theme *Teaching and Learning the Script*, as she introduces us to the rich variety of blog pieces and perspectives that are lined up in this book. Specifically, this blog piece discusses three kinds of knowledge-bases that a teacher would need to effectively teach students how to decode scripts.

Nothing preoccupies Indian educators more than teaching children *akshara gyaan*, that is, teaching them how to read and write the script. Most language learning time in early grade classrooms is spent on teaching the script – children copy down letters, then words, then sentences, and even entire passages. Over and over again (see Figure 1).

In the longitudinal research study conducted by my research team in Maharashtra and Karnataka, we estimated that two-thirds to three-fourths of the time in early grade classrooms is spent on teaching *akshara gyaan* (see Menon et al., 2017)[1]. Yet, every large and small-scale assessment shows that despite this enormous amount of time and energy put into it, most children cannot read or write the script very well.



*Figure 1.* Children engaged in copywriting. **Image Courtesy:** LiRIL Project.

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[1] The Literacy Research in Indian Languages (LiRIL) project was designed to provide a much-needed mapping of practices, issues and challenges that arise in the teaching and learning of early reading and writing in Indian contexts. It was conducted in two socioeconomically underprivileged sites, Yadgir (Karnataka) and Wada (Maharashtra). A cohort of over 700 government school students was tracked over three years (from Grades 1-3) as they learned to read and write in Marathi and Kannada (Menon et al., 2017).

*Teachers and parents expect that when children enter school
they will learn to read and write. When several children are not able
to do so even after spending quite a few years in school,
the reasons are sometimes sought in the child and the child's
background. Teachers rarely question whether their knowledge,
beliefs, approaches and strategies for teaching literacy
could contribute to these dismal educational outcomes.*

Position Paper on Early Language and Literacy in India,
Ambedkar University and Care India (2016, p.15)

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**Annual Status of Education Report (ASER, 2018)**

- **Std III:** The percentage of all children in Std III who can read at Std II level has been climbing slowly over the past few years. This figure has increased from 21.6% in 2013 to 23.6% in 2014 to 25.1% in 2016, and finally to 27.2% in 2018.

- **Std V:** Slightly more than half of all children enrolled in Std V can read at least a Std II level text. This figure has inched up from 47.9% in 2016 to 50.3% in 2018.

- **Std VIII:** By Std VIII, the last year of compulsory schooling in India, children are expected not only to have mastered foundational skills but to have proceeded well beyond the basic stage. ASER 2018 data indicates that of all children enrolled in Std VIII in India, about 73% can read at least a Std II level text. This number is unchanged from 2016.

ASER Centre (2018, p. 41)

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Whole language is an approach to literacy education that emphasizes natural development of literacy competence. Immersion in real literature and daily writing is favored over explicit and systematic teaching of decoding skills (Pressley, 2002, p. 15).

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This brings up a couple of questions. First, should so much time be spent on teaching and learning the script in early grade classrooms? Or should we just immerse children in a *whole language* environment and assume that with some guidance, they will pick up the script on their own, given a rich exposure to a literate environment?

Early educators cannot afford to ignore important parts of the early language curriculum, such as, supporting children's home languages in the classroom, children's literature, writing, and comprehension. They need to make the time - and the space - to attend to all these aspects, instead of spending a bulk of it on teaching *akshara gyaan*. However, we also know from compilations of research in teaching children the script (Pressley, 2002; Snow, Burns & Griffin, 1998) that all children do not learn to read and write scripts simply by being immersed in rich, literate environments, along with some modelling and guidance. Many students, especially those from socioeconomically disadvantaged backgrounds, appear to need explicit and systematic teaching of phonics and word study throughout the elementary grades, in order to learn to decode fluently (see Figure 2).



*Figure 2.* Explicit teaching of script. **Image Courtesy:** *Quality Education Support Trust (QUEST)*, Sonale, Maharashtra.

*For those who come to us knowing how to count to one hundred and to read, we need to teach them problem solving and how to tie their shoes. And for those who already know how to clean up spilled paint, tie their shoes, prepare meals, and comfort a crying sibling, we need to make sure that we teach them the school knowledge that they haven't learned at home. Unfortunately, though, different types of skills are not equally valued in the school setting.*

Delpit (2014)

In recent years, while the balanced or comprehensive models of literacy have gained popularity, several components that might be considered to be quite critical to early language and literacy are not explicitly addressed in these models. A crucial omission is that of oral language, which is critical to all children, but especially to second language learners in the classroom. It also does not explicitly address the need to cultivate an aesthetic engagement with children's literature or texts. Readers engage with texts not just to retrieve information from them, but also for pleasure, literary engagement and so on (Position Paper on Early Language and Literacy in India, Ambedkar University & Care India, 2016, p. 50).

Therefore, the approach that the ELI supports is one that is closely aligned with the *comprehensive* literacy approach.

In the comprehensive approach to the teaching and learning of early language and literacy, script acquisition is supported in the context of a balanced curriculum that also attends to various other meaning-making processes, such as exposure to literature, classroom talk, writing instruction, vocabulary and fluency (see Figure 3).
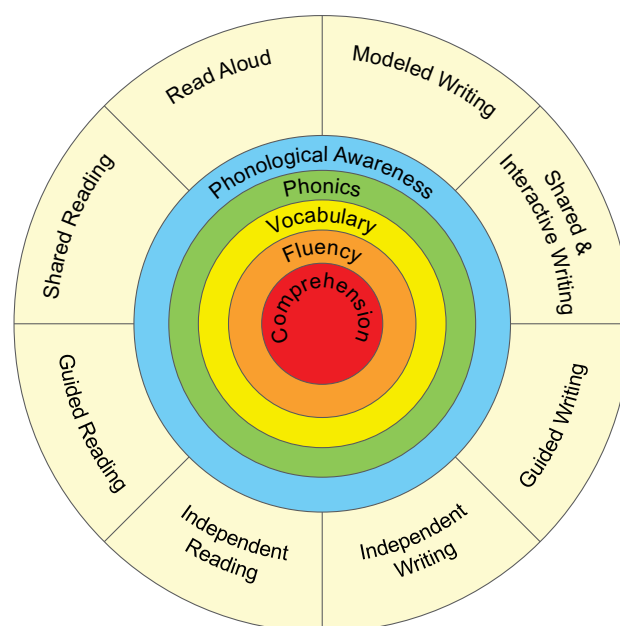


Figure 3. Key elements of the comprehensive literacy model of instruction.

*I believe that the ideal teaching of "skills" should be intentional and explicit, as well as be: (1) situated within engaging activities; (2) embedded in real writing, reading, and communication or, if taught in isolation, put immediately into the context of real writing, reading, and communication; and (3) taught flexibly when needed, rather than as an unvarying curriculum.*

Delpit (2014)

We neither recommend a narrow approach that focuses only on teaching children the script, nor one that assumes that it will happen automatically if the focus is kept on meaning making. Both *higher order* and l*ower order* processes need to be simultaneously addressed.

This brings us to the second question: we already spend a lot of time on teaching the script. Then, why do children fail to learn it? In our study, we found that only 18-24% of students were able to read a grade-level word list at the end of Grade 3, and only 10-25% of students were able to read a grade-level passage (see Figure 4) (Menon et al., 2017).

**Grade Level Reading**
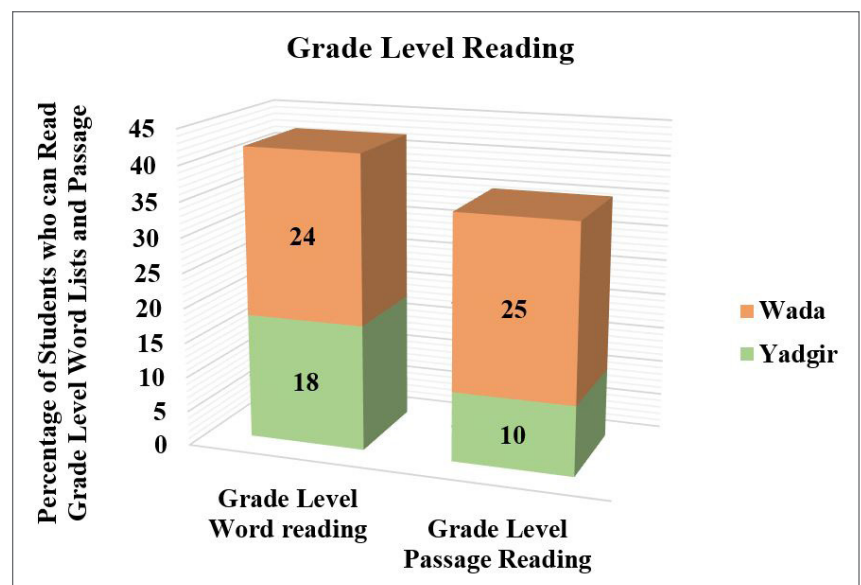


*Figure 4.* Data of students' reading grade level word and passage in Wada and Yadgir.[2]

What are we doing wrong here? (see Table 1). What do teachers, curriculum designers, or teacher educators need to know about teaching and learning scripts that would help them  do a better job? The answers to this set of questions lie at the heart of this theme– teaching and learning the script in a way that students can become fluent readers and writers.

[2] Adapted with permission from Menon et al. (2017). *Literacy research in Indian languages (LiRIL): Report of a three-year longitudinal study on early reading and writing in Marathi and Kannada.* Bangalore: Azim Premji University and New Delhi: Tata Trusts.

Table 1[3]
*How is Script Typically Taught in Classrooms?*

| How is the script typically taught in Indian classrooms? | What difficulties does this create? |
|---|---|
| The script is taught with more stress on learning the symbols (*aksharas*), than their sounds. Children spend a lot of time tracing and copywriting *aksharas* and words, but not enough time trying to match the symbols and sounds together. | Learning the script involves understanding that symbols and sounds are associated. When we look at symbols and can remember their sounds, we can read, or decode the script; when we think of sounds and can find the right symbols to match them, we can spell, or "*encode*" the script. Activities that require children to go back-and-forth between symbol and sounds are required for strong script acquisition. |
| Rote and repetition are the only strategies used to help students learn. | When children learn the script only through rote and repetition, they do not get a chance to practice their new skills, or to try to read (*solve*) unknown words on their own. This contributes to children not being able to decode individual words, or read passages for themselves. They can only "read" words that have been learnt by rote. |
| Children are not taught to blend *aksharas* into words. | Students end up reading *akshara*-by-*akshara*, and do not know when a word has been read, or where the next word begins. They end up calling out a meaningless series of syllables that do not make sense to them (or others). |
| *Maatras* are not introduced early or taught effectively. | Most everyday/common words in Marathi and especially in Kannada, have *maatras* in them. When *maatras* are introduced late (e.g., 6 months into Grade 1), students end up reading sanskritised words (e.g., *gaj*, *jal*) that are not a part of their everyday vocabulary in the early part of Grade 1, and are difficult for them to understand. When the *maatras* are introduced, as mentioned earlier, there is more emphasis on learning the symbols, than the sound, making the *maatra* learning process long and tedious for most students in our sample. |
| Children are not given opportunities to read passages at an appropriate level of difficulty | Children spend most of their time in grades 1 and 2 reading and copy-writing *aksharas*, words and sentences. They have very few opportunities to read meaningful passages at a level of difficulty that they can manage with some support. As a result, their passage reading skills are very poor, and speed (pace) of reading is very slow. Very slow and effortful reading disturbs the meaning-making process. |
| Meaning is not used as a foundation to teach children the script. | The script is taught in way that completely separates it from the child's life. Words formed from the taught *aksharas* are not words that the child is likely to understand; nor, is copy-writing an engaging or meaningful activity. As a result, children fail to see the relevance of reading and writing to their lives. |

[3] Reproduced with permission from Menon et al. (2017). Literacy Research in Indian Languages (LiRIL): Executive summary. Bangalore: Azim Premji University and New Delhi: Tata Trusts. Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/12/LiRIL-Project_Executive-Summary_Nov-2017.pdf

Educators need access to three kinds of knowledge-bases for teaching the script. First, they need to understand the script they are teaching. Many Indian scripts are *alphasyllabaries*, which are quite different from the English script, which is *alphabetic*. What do these terms mean? What is unique about the Indian scripts as compared to English? What do teachers need to know when they teach these scripts? In their blog piece, "Nature of scripts," Shuchi Sinha and Shailaja Menon take up these questions, and demystify concepts such as writing systems, scripts and orthographies before moving on to a detailed discussion on the nature of scripts in Indian languages.

A second knowledge-base that educators need to understand, is how children develop as readers and writers of different scripts.

Scripts are arbitrary symbols or "codes" that different cultures have developed which by convention have come to "stand for" something. In most Indian scripts as well as in English, the letters of the script stand for sounds. When we look at the symbols (letters, *aksharas*), and are able to recognise and articulate the sounds they stand for, we are able to read words, sentences, and passages. This process of looking at symbols and using knowledge of their sounds to read is called *decoding*. Likewise, when we think of a word that we wish to write, we are able to break it up into its constituent sounds, and remember the symbols that stand for each of those sounds, we are able to *encode* or spell the word.

Therefore, in order to learn the code, children have to learn both the sounds of their language, as well as the symbols used to represent them. This is called *phonological awareness*, which is quite an important predictor of success in learning the script. This is discussed by Harshita Das and Shailaja Menon in their blog piece, "Phonological and phonemic awareness: A brief overview."

Are there any developmental patterns that most children go through as they learn to read and write the script? Are there any typical difficulties that we can expect them to have as they learn a particular script? In their blog piece, "Phases of word reading," Shailaja Menon, Sajitha S and Neela Apte discuss findings from the Literacy Research in Indian Languages (LiRIL) study where they observed phases of word reading that children go through in Marathi and Kannada. Sonali Nag in her blog piece, "Early reading: The pace of acquisition of *akshara* knowledge," discusses the complex nature of *Kannada* script vis-à-vis the Roman script used for English language.

A third knowledge-base that educators need access to, is related to practice. They need to understand a variety of research- and experience-based practices that effectively support the acquisition of scripts. What kinds of classroom strategies help students succeed? How are these similar to, or different from, the strategies and practices currently in place in many Indian classrooms? Here, we include pieces that look at how scripts can be taught in the context of a balanced early language and literacy curriculum. Is it really possible to balance so many different concerns? Are there any examples from the Indian context that we can learn from? Keerti Jayaram (*Organisation for Early Literacy Promotion*, Ajmer, Rajasthan*)*, Maxine Berntsen (*Pragat Shikshan Sanstha*, Phaltan, Maharashtra) and Nilesh Nimkar (*Quality Education Support Trust*, Sonale, Maharashtra) discuss strategies that they have used in their different contexts in order to build script knowledge in their classrooms. Perhaps some of these strategies are generalizable to other Indian contexts.

We hope these perspective building blog pieces along with the annotated reading resources (p. 110) will be useful in building and supporting the readers' understanding of teaching and learning the script.

## What knowledge-bases could help teachers effectively teach decoding?

a. Knowledge of the nature of the script being taught.

b. Phases in children's word-reading capabilities and specific challenges encountered at different phases.

c. Access to research and experience-based practices that effectively support the acquisition of the script.

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# The Nature of Scripts

## Shuchi Sinha and Shailaja Menon

For teachers, a sound understanding of scripts is essential to teach decoding. This piece provides a brief overview on the nature of writing systems and scripts, before moving on to a detailed discussion on the nature of Indian scripts and its implications for pedagogy.

Over the years, there has been a growing support for using the balanced/ comprehensive literacy approach to teaching literacy in early grade classrooms. The balanced approach lays sufficient emphasis on the immersion of a child in a diverse and print-rich environment, but also advocates explicit and systematic instruction in decoding the script. *Decoding* refers to the processes by which a child recognises the sound-symbol relationships of a script and uses this knowledge to fluently read and spell (see Figure 5).

Teachers need to understand the nature of the scripts that they are teaching, in order to be effective at their teaching. In India, teachers often have to teach children to read and write in one or more Indian scripts, as well as in English. Should we approach teaching all these scripts in a similar manner? The answer to this will lie partially in understanding the nature of the scripts, themselves. In this piece, we introduce readers to three technical terms — *writing system*, *script*, and *orthography* (Perfetti, 2003) — and end by briefly discussing their implications for pedagogy.
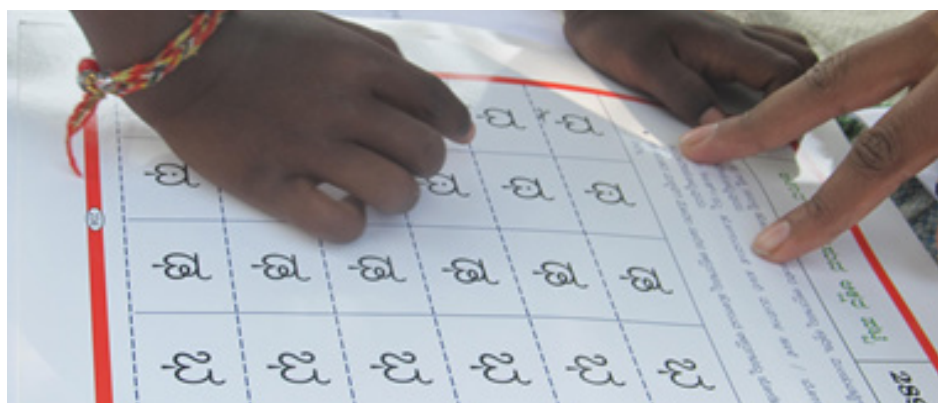


*Figure 5.* A child learning the Kannada script. **Image Courtesy:** LiRIL Project.

## Types of Writing Systems

Some theorists have classified the writing systems of the world into as many as six different groups (see Figure 6) (Daniels & Bright 1996, p.4). How do these groups vary from each other? The variability lies in how the sounds of the language are mapped on to the graphic units of the script. In this piece, we discuss only three writing systems - the *alphabetic, syllabary and the alphasyllabary* (abugida).

*Figure 6.* Six different writing systems.

**Syllabary**. In some scripts, each symbol of the writing system represents a syllable. *A syllable is a unit of spoken language that has at least one vocalic sound in it, with or without surrounding consonants.* For example, the word "cat", which has a single syllable, would be represented by a single symbol while writing; the word "ta-ble" (two syllables) would be represented by two written symbols; and the word "cat-er-pil-lar" would be represented by four symbols, one for each syllable of the word. Japanese Kana is an example of a script where each symbol represents one complete syllable.

**Alphabetic writing system.** English uses an alphabetic writing system. In alphabetic writing systems, the written symbols represent the smallest units of sound (phonemes), which cannot

Japanese Kana consists of two syllabaries: Hiragana and Katakana.

**Example of a Hiragana word**

The word air is written in the following manner:

**air:** く う き (ku u ki)

We see that the three syllables are represented by three symbols.

Figure 7 shows part of the hiragana chart, where each symbol represents a syllable.



*Figure 7*. Symbols from the hiragana chart.[4]

be further divided into smaller sounds. For example, the same word, "cat", which would have been represented by one written symbol in a syllabary, is represented by three letters in English: c-a-t. Each of these letters represents a phoneme (/k//a//t/). To learn to read and write the English script, a child has to be able to break a word down into its smallest sounds, and then match them up with symbols that represent those sounds.

**Alphasyllabary/Abugida.** How do most Indian scripts, such as those used by the major northern and southern Indian languages, fit into this classification? Let us look at an example and see how the sounds map onto the symbols.

The Hindi word कमल has three different symbols, क, म, and ल. The first symbol, क, represents a syllable, because it has the vocalic sound /ə/ ("uh") attached to the /k/ sound. Similarly, the second symbol, म also represents a syllable, which also has a vocalic sound. What about the last symbol, ल? It turns out that at the end of the word, कमल, the symbol ल does not represent a complete syllable. It does not have the /ə/ ("uh") sound attached to /l/ sound. Now, what kind of sound does this symbol represent if it does not represent a syllable? The sound /l/ cannot be subdivided; it is, therefore, the smallest unit of sound and is a phoneme.

The symbols representing consonant sounds in the Devanagari script have an inherent vocalic sound /ə/ ("uh" sound) attached to them, turning them into syllables instead of phonemes. To write the word *kamal* in English, we need five letters, while, in

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[4] Figures of different scripts in this blog piece have been taken from: Ager, S. (n.d). *Omniglot: The online encyclopedia of writing systems and languages.* Retrieved from https://www.omniglot.com/

Hindi, we need only three! Why is that? It is because the letters क and म have vocalic sounds attached to them, as explained in the box. At the same time, many symbols in the language are representative of phonemes. For example न्, after using a *halant* ( ्), a consonant symbol loses its vocalic sound and represents a phoneme. Writing systems such as those used by most Indian languages are therefore referred to as alphasyllabic systems. *Alphasyllabic writing systems have properties of both the alphabetic writing system and of syllabaries.*

**Summary of syllabic, alphabetic and alphasyllabic writing systems.**

Thus far, we have discussed three different kinds of writing systems:

1. *Syllabary*. Each written symbol represents a complete oral syllable.

2. *Alphabetic System*. Each written symbol represents phonemes, which are the smallest units of sound.

3. *Alphasyllabaries*. Sometimes the written symbols represent complete syllables, while at other times, they represent phonemes (see Figure 8).



**WRITING SYSTEM:**
When we write, we turn oral language into symbols. Different languages turn oral language into written symbols in different ways.

**Syllabic Systems**
Each symbol represents an entire syllable. For example, the word *hito* (meaning person) has two syllables (hi-to) in Japanese. Each of these is represented by a unique symbol ひ と.

**Alphabetic Systems**
Each symbol represents a phoneme, the smallest unit of sound. For example, in the word, fan, /f/, /a/, /n/ represent three different phonemes.

**Alphasyllabic Systems**
The written symbols sometimes represent syllables (like in syllabic systems), and at other times phonemes (like in alphabetic systems). For example, in the word कमल, क and म represent complete syllables ("kuh" and "muh"), while ल, represents a phoneme, /l/.
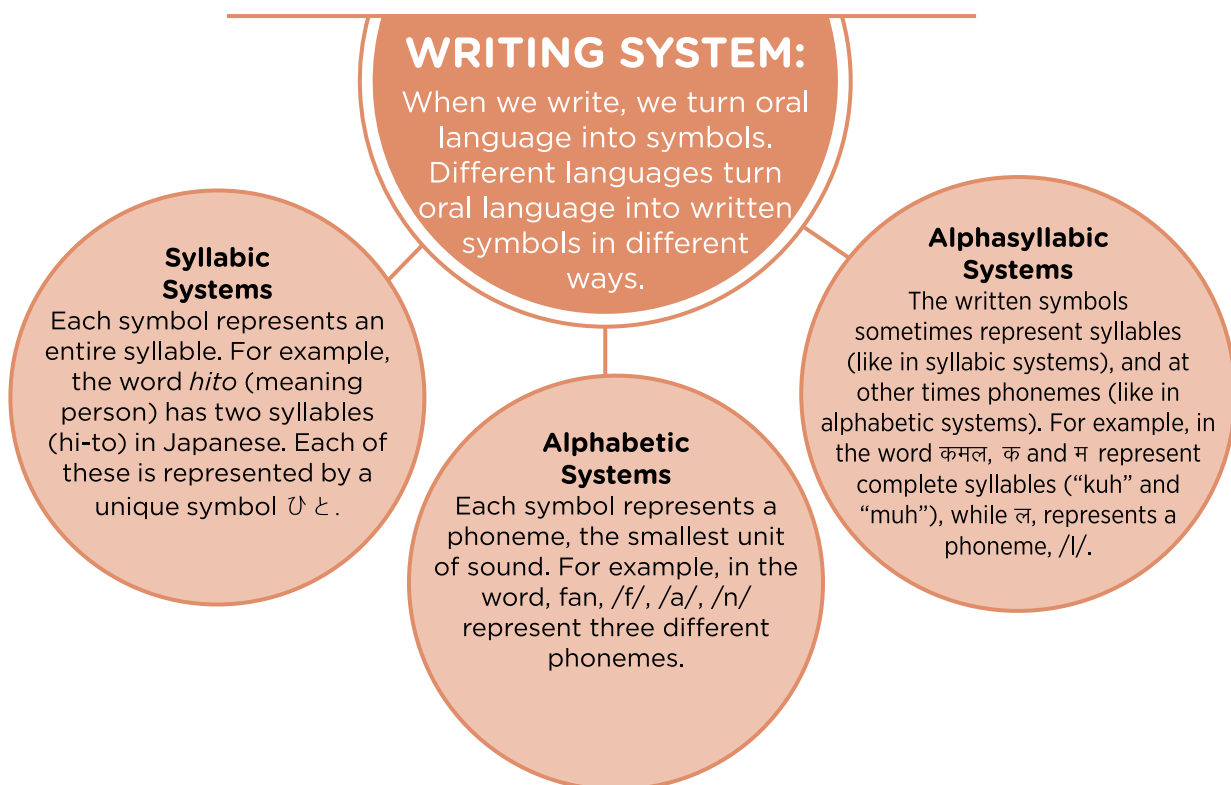
*Figure 8*. Summary of Syllabic, Alphabetic and Alphasyllabic writing systems.

# Writing Systems, Orthographies and Scripts

In this section, two new terms will be introduced, *scripts* and *orthographies*. A particular writing system can be used by different languages. For example, the alphabetic writing system is shared by English, Spanish, German, Italian, Dutch, and so on. Likewise, for many Indian languages — Hindi, Marathi, Kannada, Gujarati, to name a few — use alphasyllabic writing system. But, not all of the languages that use alphasyllabaries, share the same script. Consider Hindi and Kannada - both use alphasyllabic writing systems, but have very different scripts! (See Figure 9).

But what about Hindi and Marathi? They use the same script— Devanagiri. Despite that, it is not very easy for a person who knows Hindi to read Marathi. This is because, even within a particular script, we could have different kinds of orthographies. The orthography of a script lays down the rules and norms for writing down the sounds of a language (see Figure 10). Here is an example:

The *akshara* च in Hindi only has /ch/ sound, while in Marathi it has two sounds /ch/ and /ts/ (त्स). So, for example, a Hindi script reader would read the words चाय, चमचा, and चल using the sound /ch/. However, in Marathi it may depend from word to word. चहा and चश्मा use the /ch/ sound, while चला and चमचा use the /ts/ (त्स) sound.



Figure 9. Two alphasyllabaries - Hindi and Kannada - use different scripts.



## ORTHOGRAPHY

This refers to norms and rules for writing down the sounds of a language. Languages that use the SAME script could have different rules for spelling and pronouncing the words. For example, English, French and Spanish use the Roman script, but they use the letter, j, to represent three different phonemes. Likewise, English and German both use the Roman script, but a word tends to be spelled the way it is spoken in German; but, this is less true for English.

*Figure 10.* Orthography of a script.

# Nature of Indian Scripts

In this section, we will discuss characteristics particular to Indian scripts. We will compare these characteristics to the script used by the English language.

**Shallow versus opaque orthographies.** Orthographies are said to be shallow/transparent or opaque. Many Indian scripts have a shallow orthography. *Shallow orthographies have a one-to-one correspondence between the symbol and sound*. That is, we write words as we say them. For example, reading कमल is fairly transparent to a child who is familiar with the units क, म and ल, because each of these symbols will represent only one of two sounds – either the consonant with the attached /ə/ ("uh") sound, or just consonant sound (phoneme).

On the other hand, the English script has an opaque orthography because a letter may correspond to more than one phoneme.

> For example, the letter "a" has different sounds in the words "cat", "cake", and "car".
>
> Similarly, consider the sound of "u" in words such as "hut", "put", and "mute".

Knowledge of the letters and their sounds may not be enough to read words in the case of opaque orthographies. The child also needs to be familiar with the rules that dictate the pronunciation of letters within particular words. The shallow nature of Indian scripts may be helpful to children as they learn to read.

**Extensive versus contained.** Scripts can be contained or extensive. The Roman script used by English is "contained", as it consists of only 26 graphic units. The Devanagari script, on the other hand, is fairly extensive. The basic *varnamala* has approximately 49 different symbols. In addition, it has *maatras* (secondary vowel diacritics: 14-16 symbols), which, when combined with the *aksharas* (letters) in the *varnamala*, give rise to the *barahkhadi*[5]. It also has unique symbols for different *samyuktaksharas* (conjunct consonant symbols).

If you move from Devanagiri to other Indian scripts such as Kannada, the number of symbols further increases. The extensive nature of Indian scripts which introduce children to many, many different symbols, make it difficult for children to acquire the script.

Figures 11 and 12 represent symbols from the Marathi *barahkhadi* and Kannada *kagunita*[5].

*Barahkhadi* refers to symbols showing all possible combinations of a particular consonant with the secondary vowel signs (or *maatras*), for instance, क, का, कि, की…

| अ | आ | इ | ई | उ | ऊ | ऋ | ए |
|---|---|---|---|---|---|---|---|
| a | ā | i | ī | u | ū | ṛ | e |
| [ʌ] | [a] | [i] | [iː] | [u] | [uː] | [ṛ] | [e] |
| क | का | कि | की | कु | कू | कृ | के |
| ka | kā | ki | kī | ku | kū | kṛ | ke |
| ऍ | ऐ | ओ | ऑ | औ | अं | अः | अँ |
| ê | ai | o | ô | au | aṅ | aḥ | ãṃ |
| [e] | [æː] | [o] | [o] | [ɔː] | [aŋ] | [əh] | [ãː] |
| कॅ | कै | को | कॉ | कौ | कं | कः | कॉं |
| kê | kai | ko | kô | kau | kaṅ | kaḥ | kāṃ |

*Figure 11.* Sample of symbols from the Hindi *barahkhadi*.

| ಅ | ಆ | ಇ | ಈ | ಉ | ಊ | ಋ | ೠ |
|---|---|---|---|---|---|---|---|
| ಕ | ಕಾ | ಕಿ | ಕೀ | ಕು | ಕೂ | ಕೃ | ಕೄ |
| a | ā | i | ī | u | ū | ṛ | r̄ |
| [a] | [aː] | [i] | [iː] | [u] | [uː] | [rɨ/ru] | [rɨː/ruː] |
| ಎ | ಏ | ಐ | ಒ | ಓ | ಔ | ಅಂ | ಅಃ |
| ಕೆ | ಕೇ | ಕೈ | ಕೊ | ಕೋ | ಕೌ | ಕಂ | ಕಃ |
| e | ē | ai | o | ō | au | aṃ | aḥ |
| [e] | [eː] | [ai] | [o] | [oː] | [au] | [aŋ] | [ah] |

*Figure 12.* Sample of symbols from Kannada *kagunita*.

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[5] *Barahkhadi* equivalent in Kannada.

**Spatially complex.** Most Indian scripts are spatially complex. By that, we mean that the *maatras* are placed above, below, and to the sides of the *akshara*s,which creates a complexity in the script's appearance.

> For example, the word खिलौना has *maatras* placed to the left, top, and right of the *moolakshara*, while the word खुशबू has *maatras* that go below the line.
>
> To confuse matters further, the script is not always read from left to right. For example, in the word मिलाप, the first sound that is pronounced is /m/. However, in the script, the vowel symbol /i/ appears before, that is to the left of this symbol. Here is another example. In the word दर्द the /r/ sound is read in between the two symbols placed side by side even though it appears on top of the second symbol.

## Brief Implications for Pedagogy

An understanding of the script helps a teacher be better prepared with strategies needed to teach different scripts. Over the years, extensive research on the English script has created rich resources for teaching and learning through a phonetically sound pedagogy. However, there is still a huge gap in similar forms of research and resources for teaching different Indian scripts.

The longitudinal research project, Literacy Research in Indian Languages (LiRIL) (Menon et al., 2017) highlighted some challenges that young children have with learning to read the Marathi and Kannada scripts. As discussed earlier, the fact that most Indian languages use scripts that have shallow orthographies may make it seem as if  learning them is relatively easier than learning English. However, the combined characteristics of having an extensive number of symbols and visuo-spatial complexity, makes these scripts hard to master.

Currently, in a large number of classrooms, children are expected to master the extensive Indian scripts in a little over a year – the complexity of this task for young learners can only be imagined! Nag (2007) has pointed out that it may take four or five years for children to master the entire Kannada script. A similar timeline (with some variations) might be appropriate for the complete or fluent acquisition of most Indian scripts.

The curricular design needs to take the complexity of the script, such as the sheer number of graphic units, the conjunction of *maatras* and consonants, and the visual and spatial complexity of *aksharas* into account. It should be taught systematically and explicitly, using a balanced approach. An example of how this can be done can be found in the approach  followed by organisations such as *Organisation for Early Literacy Promotion (OELP)* in Ajmer (Jayaram, 2008a, b) discussed in a later piece in this resource book.

## To summarise

1. There are several different kinds of writing systems across the world.

2. Syllabaries encode sound at the level of syllables; alphabetic systems encode them at the level of phonemes; while alphasyllabaries move between the syllabic and phonemic levels.

3. English uses an alphabetic writing system, while many Indian languages use alphasyllabic writing systems.

4. While alphasyllabic scripts are easier to read in terms of their shallow orthographies, they also use a more extensive and spatially complex set of symbols.

5. More time and practice should be allotted for children to master Indian scripts than commonly assumed necessary.

6. Learning to decode must happen in the context of a balanced curriculum that attends to both meaning and *akshara gyaan* (knowledge of the script) simultaneously.

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# Phonological Awareness and Phonemic Awareness: A Brief Overview

Harshita Das and Shailaja Menon

What is meant by the terms *phonological awareness* and *phonemic awareness*? Why are they important to the language teacher? How can we support these in the classroom? Shailaja Menon and Harshita Das attempt to make these technical concepts more accessible to understand. They also suggest some activities that you could adapt for use in your classroom.

Children pick up oral languages seemingly effortlessly. But, when they transition into the written medium, they need to develop some new understandings about how oral languages work.

According to a vast body of research conducted on English and other alphabetic scripts, it is important that young children be made aware that oral speech can be analysed into smaller units of sound. This awareness is broadly called *phonological awareness*, which is considered to be vital to the success of every reader (Snow, Burns, & Griffin, 1998; Adams, 1994).

Phonological awareness (PA) is one such skill that children need to pick up as they enter the written world. What is PA? Defined simply, PA is the awareness that spoken language can be broken down into smaller units. What do we mean by that? When young children pick up oral language, what they hear is a "speech stream" - because we rarely pause after individual words, but after entire phrases. Children may perceive this uninterrupted speech stream as a whole, and may not be aware that it can be analysed into smaller units of sound.

*Figure 13.* Phonological awareness of a language is an essential component of fluent reading. **Image Courtesy:** LiRIL Project.

Young learners may slowly become aware (or be made aware of the fact) that speech consists of words. Some words may sound like other words (that is, they may rhyme with other words), while some words may start or end the same as other words.

Both "cat" and "kite" start with the same sound, /k/, and both "cough" and "giraffe" end with the same sound /f/. Children may notice that both "man" and "fan" share the ending sound –an, while "pot" and "rob" have the same middle sound, /o/.

Slowly, they may realise that words can be further broken down into syllables (e.g., Ja-na-ki), and syllables into still finer units of sounds, for example phonemes, the smallest units of sound in oral language (e.g., /j/ /a/ /n/ /a/ /k/ /i/).

Why is it important that young children become aware of these patterns of sounds in spoken language? This is because at its heart, writing is about using symbols to represent small units of sound. If children cannot hear or distinguish these smaller units of sound, they are not likely to be able to either read, or spell very effectively. Therefore, phonological awareness is a critical skill to teach and learn in the early years!

## Development of Phonological Awareness

There is a developmental continuum along which phonological awareness develops in young children (Ellery, 2007) (see Figure 14). Let us understand each of the components of this developmental continuum in some detail.

Phonemes

Onsets & Rimes

Syllables

Rhymes

Words in sentences

*Figure 14.* How phonological awareness develops in children.

**Awareness of Words.** Initially, young children may not be able to discern individual words in speech, because when we speak, we pause between phrases, not after every single word. For example, in the sentence, "He kept on running", oral language is likely to sound like this to a child, "He *kepton* running". The child may not initially understand that "kept" and "on" are two different words, and not a single one. The ability to segment sentences into component words is, therefore, an important skill that needs to be developed if the child is to make a successful transition from oral speaker to writer.

In Figure 15, the child's spellings reflect her growing phonological awareness. Some words, such as *neeto* (need to), *keypon* (keep on ), and *thethsvy* (that is why), show how to her these words sound as if they are clubbed together.

A wave board is as expensive as an elephant

A wave board is as expensive as an elephant.

Because when you wave board you get very tired.

So you need to keep on eating and drinking.

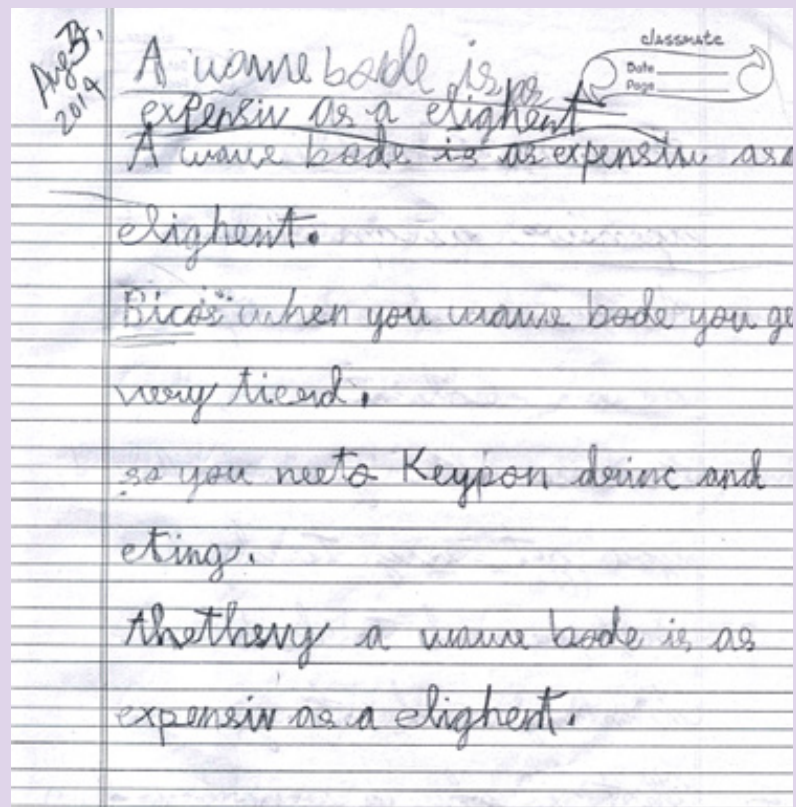That is why a wave board is as expensive as an elephant.

*Figure 15.* A child's emergent writing sample. **Image Courtesy:** Shailaja Menon.

*Figure 16.* Child engages in reading rhymes (*laal-gaal, raja-taja*). **Image Courtesy:** PSS, Phaltan, Maharashtra.

**Awareness of Rhymes and Alliterations.** Young children often notice that some words "sound like" others, mostly because they end with similar sounds. Nursery rhymes build upon this emerging capability of young learners. Likewise, alliteration refers to words beginning with the same sound. Many tongue twisters for young children make use of this feature.

Every language has alliterations which become a part of children's everyday games. Consider the following examples

- पीतल के पतीले में पपीता पीला पीला।
  *(Peetal ke patile mein papita peela peela.)*
- She sells sea shells on the sea shore.

Rhymes not only provide delight and variety in the early language classroom, but give children many opportunities to notice similarities and dissimilarities in how different words sound (see Figure 16). Learning to be attentive to these patterns would help them as they transition to the written script.

**Awareness of Syllables[6].** Slightly older preschoolers and primary grade children can be made aware of the fact that words can be further broken down into syllables. Being able to hear syllables in words will help children break long words apart and read and spell words by syllable at a later point. Most Indian scripts have symbols that work at least in part at the syllable level. For example, the word paani has two syllables - paa-nii (पा - नी) while banana has three syllables - ba-na-na (see Figure 17). Each of these syllables has one symbol that represents the sound. Helping children to segment and blend syllables is therefore important.
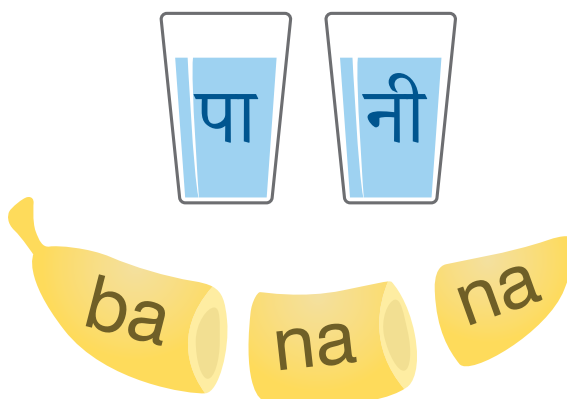


*Figure 17.* Syllable segmentation of the words *paanii* (पानी) and banana.

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[6] A syllable is a unit of spoken language that has at least one vowel (vocalic) sound in it, with or without surrounding consonants. For example the word table has two syllables, ta- and -ble.

*Children are not taught to blend sounds and syllables into words. A major part of the reason that we see children struggling to understand the difference between aksharas and words is because children are not encouraged to put together aksharas and form words when they read. As a result, children often read syllable by syllable, akshara by akshara. They read without meaning or expression.*

Subramaniam, Menon and Sajitha (2017, p. 23)

- Blending involves the ability to listen to a sequence of separate speech sounds and combine the sounds to form a whole meaningful word.
- Segmenting involves hearing a word and then breaking it into its constituent parts. This contributes to children's ability to decode and spell.

Das & Pydah (2019, p. 10)

**Awareness of Onsets and Rimes[7].** This slightly sophisticated phonological awareness skill is most relevant to learning the English script. In English, five vowels (a, e, i, o, u, and sometimes w) end up making 17-18 different vocalic sounds.

For example, the letter "a" makes very different sounds in "cat", "cake" and "car". How can we teach children the sound of "a"? If we look carefully, the English script has certain regularities. The sound of "a" is quite stable in cat, bat, mat, and sat; and in cake, bake, make, taken, and raking; and also in car, far, barred, and star. In short, the sounds of vowels largely stabilise when they are part of a "rime" (not "rhyme").

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[8] Applicable while teaching English.

What is a rime? The rime is the vocalic sound and all that follows it, within one syllable. The onset is what comes at the beginning of the syllable, that is, before the vocalic sound. That sounds complex! But, it is fairly simple. Let's look at a few examples.

**Cat:** The vocalic sound /a/ and all that follows it is the rime. What follows /a/ is the /t/ sound. Therefore, "at" is the rime. What comes before the vocalic sound is the onset. This is the sound /k/. Figure 18 gives example of words divided into onsets and rimes.
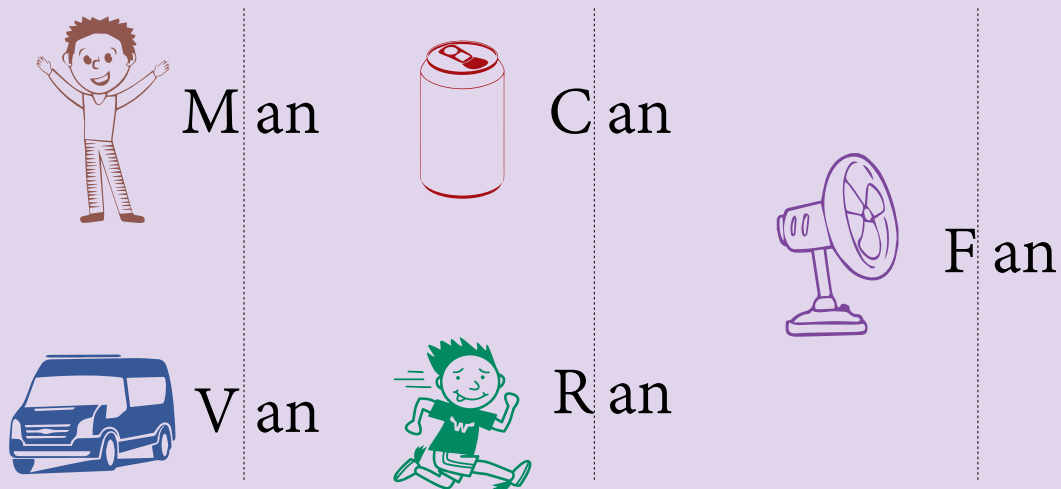


*Figure 18.* Words divided into onsets and rimes.

Can young children be taught to break up the word "cat" as /k/ - /at/? Of course!

Here are a couple of other examples:

Bake = /b/ (onset) + /ake/ (rime)

Singing = there are two syllables in this word, so first let's break up the word into syllables = Sing + ing

- Sing = /s/ (onset) + /ing/ (rime)
- ing = no onset (there is no sound before the vocalic sound in this syllable) + /ing/ (rime)

Even before young children learn the script, they can be made aware that parts of some words sound like parts of other words (e.g., /at/ in bat, cat, sat, fat, etc.) . This would help develop their awareness of rimes.

Onset-rime awareness may not be important to learning Indian scripts. At this point, we recommend using it only while working with English words.

**Awareness of Phonemes.** Phonemes are the smallest units of sound that cannot be broken up any further. Awareness of phonemes within words is referred to as *phonemic awareness (pa)*, and is the last of the phonological skills to develop in young children. This is because it involves the smallest units of sound, which requires greater developmental sophistication



*Figure 19.* Child's spelling of window (Bindo) reflects her developing phonemic awareness.
**Image Courtesy:** Riya Parikh, Nirman, Varanasi.

For example, the word "cat" has three phonemes, /k/ + /a/ + /t/. No matter how much we try, we cannot break these three sounds down any further.

In the word "chat", the letters "ch" come together to make one phoneme /ch/, while /a/ and /t/ represent individual phonemes.

In the English script, sounds are represented at the phonemic level. For children learning scripts which are like the English script, it is quite critical to be aware of individual phonemes, because, if you cannot hear these sounds, you will not be able to represent them in writing (see Figure 19). Research conducted on English shows that phonemic awareness is one of the leading school-entry predictors of how well children will learn to read in kindergarten and Grade 1 (Share et al., 1984, as cited in Ehri & Nunes, 2002). At present, we don't have enough research on the importance of phonemic awareness in learning to decode Indian scripts, which work a little differently from the English script.[8]

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[8] The differences between scripts used by English vs. the Indian languages have been addressed in the piece, "Nature of scripts," in this resource book.

**Yopp & Yopp (2000) suggest three main principles while engaging with phonemic instruction in classrooms:**

- Phonemic awareness instruction for young children should be playful and engaging, interactive and social, and should stimulate curiosity and experimentation with language.

- Teaching of phonemic awareness should be deliberate and explicit. It should be intentional, and not just incidental.

- Phonemic awareness should only be one part of a broader literacy curriculum. It is essential to give children opportunities to engage with other literacy based activities, such as, reading, writing, talk and so on (Yopp & Yopp, 2000, p. 132).

Before we proceed further, it is very important to understand the difference between phonological awareness and phonics!

| Phonological awareness | Phonics |
|---|---|
| Phonological Awareness (PA) is a specific set of skills that involves the ability to discriminate and manipulate sounds in speech. | Phonics is a method of teaching reading and writing that involves developing a systematic awareness of sound-symbol relationships. |
| It is an *auditory* skill, which begins to develop even before symbols have been introduced, and continues after. | It involves an *auditory-visual* process, where children go from the symbols they see, to the sounds that each symbol represents (decoding - sounding out words); and from the sounds they wish to represent, to the symbol for each of those sounds (encoding - spelling). |
| We can begin teaching PA in pre-school before we begin teaching children phonics; this should continue along with phonics until at least the end of second grade, and beyond, as needed. | While children can begin learning informally about the world of print at a very young age, systematic phonics instruction typically starts at around 5-6 years of age, and should ideally continue until the end of fourth- or fifth-grade. |

**This is why phonological awareness (awareness of sounds) is necessary for learning phonics (sound-symbol relationship), but it is not the same as phonics. For learning phonological awareness, all you need are your ears; while to learn phonics, you need both ears and eyes.**

# Activities to Teach Phonological Awareness

How can we teach phonological awareness to young children?[9] We suggest a few activities that you could use in your classrooms.[10]

## Word Awareness

This activity helps children recognise that a sentence is made up of words.

You will need paper cups with at least 10 counters (these could be candies, dry fruit, nuts, or anything the children can eat after the activity).

You first start with counting a number of objects in the classroom – the number of chairs in a row, the number of windows, doors, shelves, tables, and so on. For each object you count, you pick one candy from the cup and place it before you. For example, if you count three chairs, you pick three candies to represent those three chairs. Then you put all the candies back into the cup.

Now, tell the children that they can also count words by picking out a candy from the cup and placing it before them as you speak a sentence. Speak the sentence at a normal pace once. Then repeat it, pausing after each word. The children should pick a candy each time you say a word and put it in front of them. Ask them to count the number of candies to decide how many words you have spoken.

The best way to capture their attention is to use their names in the sentence. For example, "*I saw Anya in the market yesterday*"; "*Nikhil has a bright red cycle*"; "*Priya has two sisters*".

As a follow up activity, ask children to come up with sentences, say it at a normal pace, and then word by word as their friends count. This activity could be adapted to any Indian language. Alternatively, you could have children jump once or clap once for each word they hear.

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[9] Please remember that children go through developmental phases when they learn the components of the continuum. Do ensure you select activities that suit the level of your children.

[10] For a more comprehensive set of strategies on phonological awareness, please refer to the ELI's practitioner brief: Das, H.V., & Pydah, A. (2019). *Supporting phonological awareness in pre-primary and primary classrooms*. Hyderabad: Early Literacy Initiative, Tata Institute of Social Sciences. Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/08/ELI_Handout_5_Phonological-Awareness.pdf

## Rhymes

These activities help develop an awareness of sounds and a sense that some words end in ways that sound similar.

**Rhyming jar.** Make paper strips. On each strip, write down a pair of sentences that end with rhyming words (see Figure 20). Leave the second rhyming word blank. For example

I have a pet cat. He is under the ___ (mat).

This is my bed. I want to paint it ___ (red).

I climbed a tree. I got stung by a ___ (bee).

Read out the first sentence and highlight the word that they have to come up with a rhyming word for, by either whispering the word or saying it emphatically. Then read the second sentence and give them enough time to suggest a rhyming word.

You could also use nursery rhymes: *Macchli jal ki rani hai* (Hindi); *Twinkle, twinkle little star* (English); *Thotake hogo thimma* (Kannada).

Here is another activity you could use to teach children to recognise rhyming words.

**Record a rhyme.** Each time, before you play it, call out a word. Ask the children to jump; touch their feet; or clap their hands when they hear a word that rhymes with the word you have called out. For example, before you play, *Twinkle, twinkle little star*, suggest a word that rhymes with "star", for example "far". When you play it, ask the children to clap when they hear the word that rhymes with it as they listen to the rhyme.



*Figure 20.* Example of a rhyme jar.

## Syllables

Once children are comfortable identifying the number of words in a sentence, and can identify rhyming words and come up with some of their own, we can move on to helping them identify syllables in a word.

Cunningham (2005) suggests that the word "syllable" is a bit too much of a jargon, and children may not be able to relate to it. Instead, you could use the word "beat". Start with their names: how many beats does the name ANANYA have? They clap for each syllable. The answer is three— An-an-ya—and hence they clap three times. From first names, you could move on to last names, and then to words from stories you read, or others they come across, such as names of animals or flowers.

A follow-up activity could be done while taking the attendance. Each time you call out a name, ask children to clap the number of beats (syllables) in their name. Another way of doing this is while the students are about to leave after school, you could have them go out in batches: clap once and all the children whose names have single syllables could leave the class first; clap twice, children with two syllables in their names leave next; and so on.

The *Organization for Early Literacy Promotion* has children play antakshari with syllables. For example, if one child says, कमला, the next child has to take the final syllable ला and make the next word with it, for example, लाना. The third child would take the syllable, ना, and make the word नाक with it. This is useful if you are teaching Indian scripts.

## Onsets and Rimes

Blending and segmenting are not easy for many young children. In general, it is easier for them to segment the beginning letters—the onset—from the rest of the word—the rime—than it is to separate out all the individual sounds in a word (Cunningham, 2005). For example, it's easier to break up the word "cat" into /k/-at, rather than into /k/ /a/ /t/.

You could also ask them to put sounds—the onset and rime—together to form a word. They will also recognise with practice that manipulating the onset and replacing it with another sound will change the meaning of the word.

Teacher: I know a word that ends with 'at', and starts with /b/. Which word do you get?

Once the children suggest the word "bat", replace /b/ with /k/ or /m/ and repeat.

## Phonemes

Children should be given ample support for isolating, identifying, blending, and segmenting individual sounds within a word. Manipulating individual phonemes – adding, deleting and substituting phonemes—are also important skills that children need to develop.[11]  Here are some activities for teaching isolating and identifying; and blending and segmenting phonemes.
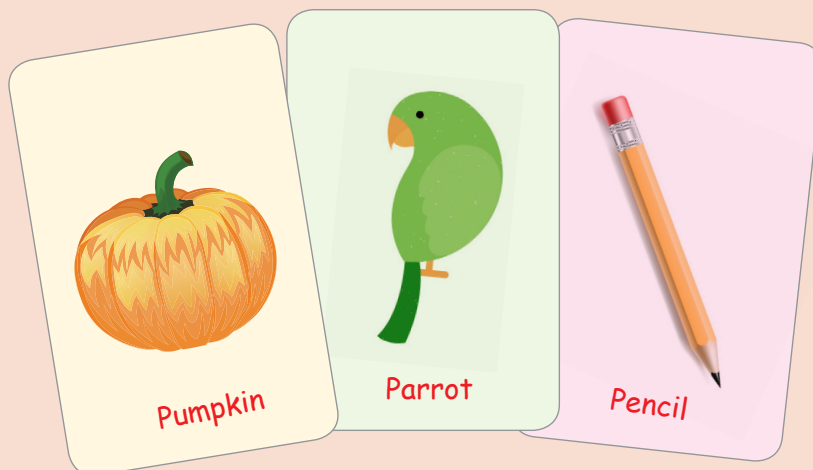


*Figure 21.* Words starting with /p/.

**Isolating and Identifying.** This activity helps children identify the first or the last sound in the words. You begin with isolating the first sound, then the last sound and finally the middle sound. Each of these have to be done as separate activities, and not all at once.

• **Isolating beginning sounds.** Keep a few pictures or objects ready for this activity. Say you have a picture of a parrot, ask, "What do you see?"

  "A parrot."

  Then ask the children to identify the beginning sound of the word (/p/). Initially, make this explicit as you help them. Ask them to look around their classroom to find other objects that start with the same sound: pencil, paper, and so on (see Figure 21).

• **Isolating ending sounds**. Sit with your children in a circle, and play a game that is like antakshari. Tell them they should pay attention to the last sound of the word being spoken out loud. Say you use the word "pencil", the child on your left picks up the last sound from the word, which is /l/. Now, he has to come up with a word that starts with /l/. He may say "lollipop", and the child to his left has to now come up with a word beginning with /p/.

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[11]  All these terms are explained in detail in the practitioner brief, Das, H. V. & Pydah, A. (2019). *Supporting phonological awareness in pre-primary and primary classrooms.* Hyderabad: Early Literacy Initiative, TISS Hyderabad. Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/08/ELI_Handout_5_Phonological-Awareness.pdf

**Blending and Segmenting.** A simple activity to support this could be— "what would you get if…"

This is how it goes: Ask the children, "What word would you have if you put these sounds together: /k/-/a/-/t/ (cat); /m/-/a/-/t/ (mat)…

For segmenting, you could use a similar activity. Ask students, "How many sounds do you hear in this word?" and provide them with simple words, like cat, mat, sat, and rat, to begin with. You could use their names to get them to be interested.

In conducting these activities, *it is important to remember that phonological awareness activities should not take more than 10-20 minutes a day in early-grade classrooms*. There is far more to learning to read and write than developing phonological awareness, and a balanced curriculum would attend to various other processes. To be successful, phonological awareness activities should be quick, fun, engaging – and surrounded by a variety of other reading and writing activities!

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# Early Reading: The Pace of Acquisition of *Akshara* Knowledge

## Sonali Nag

Sonali Nag's research attempts to fill an important gap regarding our knowledge about the acquisition of Indian scripts. In this piece, she briefly describes a longitudinal research study in which she investigated issues related to the acquisition of the Kannada script.

This blog piece is based on a scientific paper published in 2007 about early reading.[12] The insights in this paper about *akshara* learning (orthographic knowledge) are applicable to early reading in all languages that use the *akshara* writing system (e.g., Hindi, Bengali, Marathi). We can say this with confidence for two reasons:

> First, the logic of the *akshara* is the same even when the script looks different—for example, Hindi and Bengali look very different from Kannada but in all three a consonant and a vowel combine to form the symbol block called *akshara*.

> Second, independent groups have found a similar pattern of *akshara* learning as reported in the 2007 scientific paper— that is, the findings found in Kannada have been replicated in other Indian languages (e.g., Malayalam: Tiwari, Nair & Krishnan, 2011).

The 2007 paper also reports findings about children's awareness of the sounds that make up a word (phonological awareness, orthography-phonology mapping). This part of the research findings, however, is only partially understood (we discuss this in Vagh & Nag, 2019).

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[12]   This blog piece is a summary of the original paper, Nag, S. (2007). Early reading in Kannada: The pace of acquisition of orthographic knowledge and phonemic awareness. *Journal of Research in Reading, 30(1),* 7-22. Retrieved from http://eli.tiss.edu/wp-content/uploads/2018/08/Nag-2007-JRIR_329.pdf

# Background

In 2002, we did not know the exact nature of early skills required for learning to read Kannada. Studies in the 1980s and 90s by G. Purushottama, S. Ramaa, P. Karanth and P. Padakannaya gave us several leads, but many areas remained unexplored (published for example in Prakash, Rekha, Nigam & Karanth, 1993; Purushothama, 2001; Ramaa, Miles, & Lalithamma, 1993).



*Figure 22.* A child learning about the Kannada script during a language session.
**Image Courtesy:** *The Promise Foundation,* Bangalore, Karnataka.

Instead, we knew a lot about learning to read English: the English script is written using letters and letters represent phonemes. Children who know the names and sounds of letters and are sensitive to the phonemic units that make up a word are at an advantage. They can put these two sets of skills together to decode a word they have never seen before. Knowing about letters is called alphabet knowledge, and being sensitive about the smallest sound in a word is called phonemic awareness.

Both these concepts, however, did not seem suitable for Kannada. For one, the *akshara* is quite different from the letter (e.g., if you know the name you also know the sound of an *akshara* but not a letter). Second, when we began our study, every member in the research team appeared to prefer the more substantial syllabic sound over the smaller phonemic sound. It appeared as if it was easier for Kannada speakers to catch the syllabic sounds in a word (many *akshara* represent sound at this level), as opposed to the phoneme. On reflection, it seemed odd

that a sound unit easy for precocious, native English-speaking four-year-olds (the phoneme) was difficult to discern for so many of us who were otherwise good readers! Given all these differences, we met the participating students in our study with an open mind.

## The Survey

We gave children in Grades 1 to 3 short language and literacy tasks. Each participating child was met one-on-one by a small team of researchers. We travelled from school to school across the district of Chamarajanagar in Karnataka, conducting this research (see Figure 23). We did not assess all children in a class. Instead, we randomly picked a small number. Such a procedure allowed us to get what, in statistical terms, is called an unbiased, representative sample[13].



*Figure 23.* Interaction with a child during the first round of the project survey.
**Image Courtesy:** *The Promise Foundation*, Bangalore, Karnataka.

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[13] In other words, other children from similar schools could be said to be similar to our survey sample and because of this, insights we gained from the sample could be said to apply to not only the children we met but also their peer group whom we did not meet. It is this principle of research that would later allow independent groups to make a decision on whether the findings from this study would be relevant in other schools and for other Indian languages.

Another unique aspect of this survey was that it was *longitudinal* in nature. That is, we returned to meet the same children after fifteen months. The multiple points of data collection (T1 is the first time we met, T2 the second time) allowed us to see how a given skill changed over time.

*Akshara* learning was continuing rapidly but remained incomplete even in Grade 4. We found that simple *akshara* like "ka" and "gi" were learned earlier than more complex *akshara* like "swa" and "pri".  Perhaps the reason for this is that the more complex *akshara* contain groupings of sounds, and all the component sounds in this grouping have to be well represented. For example, in the *akshara* "swa", the /s/ sound represents a phoneme, which blends (combines) with the next two phonemes, /w/ and /a/, to form a syllable. In parallel, "swa" when written down is a more complicated looking *akshara* than the *akshara* for just the "sa" or the "wa". Children needed more time to learn these layers of complexity (see Table 2).

Table 2
*Sample of Simple and Complex Akshara in Three Indian Scripts*

| Type of *akshara* | Hindi | Kannada | Gujarati |
|---|---|---|---|
| Simple | का | ಕಾ | કા |
| | गी | ಗೀ | ગી |
| Complex | स्व | ಸ್ವ | સ્વ |
| | प्री | ಪ್ರಿ | પ્રી |

The design of our research allowed us to also examine whether skills at T1 would predict how children would perform at T2, fifteen months later. We found that early *akshara* knowledge and syllable awareness was linked with later knowledge of more *akshara*. Very few children were able to perform the phoneme tasks (that is, most children struggled to work with phoneme units). We found that for children with relatively advanced phonemic sensitivity, there was an early advantage: from the start they were more discerning about some phoneme sounds and this sensitivity, alongside knowing more *akshara* and being more skilled at noticing syllables, predicted their later sensitivity to phonemic units within a word.

Some *akshara* remained tricky for all children while others were quickly learnt[14]. Given this pattern of *akshara* learning, what can this study tell us about children's development as word-readers?

- First, if a word only has *akshara* that the child has seen often and recognised successfully before, then she will be able to read the word. Note that these *akshara* do not necessarily have to be simple. They can also be complex *akshara* that have come up often in a natural way.

> For example, if your name is Chai<u>thra</u>, Ne<u>thra</u> or Pavi<u>thra</u> then the *akshara* "*thra*" should be easy to recognise even before the *akshara* is specifically taught in class.

- Second, words with known *akshara* should be easy to read even if those *akshara* are in words seen for the very first time.

> For example, after having learnt the *akshara* का ("*kaa*") in काका ("*kaakaa*") and ला ("*laa*") in लाला ("*laalaa*"), the child has all the *akshara* knowledge needed to read the new word काला ("*kaalaa*") quite easily.

Some children, however, freeze when seeing an easy but new word. Here, the error does not stem from poor *akshara* knowledge but perhaps from a fear to take risks and make mistakes (a common answer would be, "I don't know"). Successful word-reading is thus also about a positive "can do" attitude with new material.

- Third, there is little point in waiting for children to learn all the *akshara* before teaching them to read words. There are simply too many *akshara* and, anyway, many *akshara* are rarely used. It is advisable to begin word reading right from the start, and pick words that are meaningful and useful, and not artificially chosen to be simple.

> For example, several government programmes for the early grades, such as *Activity Based Learning* in Tamil Nadu, *Nali Kali* in Karnataka and *Pragna* in Gujarat, introduce children to words before teaching them all the *akshara*. These programmes start with teaching children a small set of *akshara* that are very frequent in the language. Children are introduced to different words and other text-based exercises using mainly the *akshara* in the set.

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[14] Another line of my research checks what makes some *akshara* easier to learn than others; published for example in Nag & Narayanan, 2019; Nag, 2017, 2014; and Nag, Snowling, Quinlan, & Hulme, 2014.

In a sequenced manner, more *akshara* are introduced in such small, manageable sets, supporting the child's learning of more and more *akshara*. A similar grouping of *akshara* to aid learning is also seen in the early literacy programmes of a diverse set of organizations across India, such as *The Promise Foundation, Room to Read, Language and Learning Foundation (LLF), Organization for Early Literacy Promotion (OELP), Pragat Shikshan Sanstha (PSS)* and *Quality Education Support Trust (QUEST)*, and the conceptualization of early steps in programmes developed by educators in Indian languages such as *Chandrika Mathur* (for Hindi) and *Leela Garady* (for Kannada).

Picking words that are meaningful and naturally necessary to communicate an idea may need the inclusion of some words with a complex *akshara*. The research suggests that when a complex *akshara* is encountered in words that are needed by the child, the *akshara* will be learnt.

- Fourth, be prepared that some *akshara* learnt in Grades 1 and 2 will be forgotten by Grades 4 and 5. This is because those *akshara* are infrequently used and naturally fade from memory. One way to avoid complete incomprehension about an *akshara* is to talk about its parts. Then, if an unexpected *akshara* is found in a new word, the child can become analytical and attempt to decipher the parts of the *akshara*.

For example, discussing the shapes in an *akshara* is seen across the country. Teachers throughout Tamil Nadu describe parts parts of the Tamil *akshara* using simple labels. These include: *puḷḷi* ( ˙ , 'dot'), *tunaikkāl* ( *π* 'extra leg'); *ottaikkompu* ( ெ 'one horn'); *reṭṭaikkompu* ( ே , 'two horns'); *reṭṭaicuḻi* 'n' ( ன , '2 loops n') and *mūnrucuḻi* 'n', ( ண , '3 loops n'). To teach children the /i/ and /ii/ *maatra* (which appear as ि and ी) in words written in Devanagari, teachers in the OELP project in Rajasthan say, "क को लुगड़ी डाल दे (Place a scarf on क (*"ka"*): की and कि). In Marwari, the home language in these classrooms, *lugdi* refers to the scarf (*dupatta*) that Rajasthani women cover their heads with, often gracefully pulling them low over their faces. Since the diacritics ि and ी appear similar in shape to these draped scarves, the *lugdi* imagery is given to help children notice these vowel components within *akshara*.

Another type of talk about parts of an *akshara* is where teachers point out the same form when it appears in different *akshara*. For example, in Hindi, it is possible to recognize the familiar क (*"ka"*) in the unfamiliar क्त (*"kt"*)

> (in words like वक्त, *vakt* - time) and it is almost immediately clear that the *"ka"* sound must be doubled in the number word इक्कीस (*ikkees* - twenty-one).

- Fifth, some *akshara* will be difficult to split and analyse. In Hindi, for example, the four such *akshara* are क्ष, त्र, ज्ञ, श्र (*"ksha"*, *"tra"*, *"gya"* and *"shra"*). This is why building a big vocabulary is important. When the child has a big vocabulary she can guess the word based on the few other *akshara* in a word that she can recognise; she is not stuck because of the one *akshara* in the word that she cannot read. The same decoding support from a big vocabulary can help in reading words with *akshara* that have faded from memory or are yet to be taught. Again, a positive "can do" attitude to word-reading helps children attempt words with unfamiliar *akshara*.

> For example, take the popular Hindi nursery rhyme "मछली जल की रानी है|" (*machlii jal kii raanii hai*, Fish is the queen of water). Imagine a child who sees this familiar poem in text for the first time. In attempting to read the first word, even if the child is not familiar with the *akshara* छ, she may be able to read the word because of several clues (referred to as contextual cues). The familiar *akshara* in the word (म and ली in this instance), and, most importantly, a familiarity with the rhyme, aids in guessing what the word might be. Other contextual cues the child may use include noticing the page has an illustration with fishes and remembering that the day's rhyme is about fishes.

## Closing Note

This study on "pace of acquisition" shows that the pattern of Kannada skill development is different from the pattern reported in studies on English. *Akshara* knowledge is different from letter knowledge, because while learning *akshara*, syllable awareness is present early and phoneme awareness is slow to develop.

Research such as the one reported in this paper can inform what may work in the classroom.

**A quick outline of the original paper for interested readers:**

The first part of the paper (pages 7 to 9) puts down what is known about early skills in English, the nature of the Kannada script and sounds. The second part of the paper describes the children we met (pages 10 and 11), and the different tests we asked them to take to understand their level of skill and knowledge (pages 12 and 13). The third section reports the statistical analysis I conducted (pages 14 to 17) and the fourth part discusses what these analyses reveal (pages 18 to 20).

A parallel story running in this paper is whether children in more efficient schools perform better and if so, does the pattern of skill development look different. We found the pattern was similar but the skills developed faster in better schools. Yet, many *akshara* remained to be learnt. To follow this thread in the paper start on page 10, then see page 12 for a description of the school indicators checklist we used to judge school functioning, then go to the school-level analysis on page 17 and finish on page 20, where I discuss the findings briefly under the section on practical implications.

A highlight of the paper is that the results clearly challenged assumptions made from English. I propose that a new way of looking at the world's scripts is needed: the world's scripts fall along a continuum from contained symbol sets to extensive symbol sets, and the learning demands differ depending on the size of the symbol set (page 19).

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# Phases of Word Reading

## Shailaja Menon, Sajitha S and Neela Apte[15]

Drawing upon the findings of the longitudinal research project Literacy Research in Indian Languages (LiRIL), Shailaja Menon, Sajitha S and Neela Apte describe the phases of word reading that children go through as they learn to read Marathi and Kannada. Implications for teaching children are also briefly described.

Sinha and Menon (this volume) in their piece, "Nature of scripts," explained that most Indian languages use alphasyllabic scripts, unlike English, which uses an alphabetic script. Marathi and Kannada are examples of languages that use alphasyllabic scripts. A common feature of many Indian scripts is that there is a unique symbol for every sound. While this makes the sound-symbol correspondences very regular for young readers and writers, it also makes the task quite daunting in terms of the sheer number of symbols to be mastered.



*Figure 24.* Children learning to read and create words. **Image Courtesy**: Sajitha S., SAJAG, Kalyan, Maharashtra.

In Marathi and Kannada script, there are at least 49 primary symbols (the number varies a little by language), which we shall call *moolaksharas* (क, ख, ग) in this piece. In addition, there are 14-16 secondary symbols that represent different vocalic sounds called *maatras* (ा, ि, ी) in Hindi. The *maatras* get attached to the *moolaksharas* to produce unique configurations. Further, there are additional symbols that represent conjunct consonant sounds that are called *samyuktaksharas* (श्र, क्ष) in Hindi. Thus, students have to master an extensive set of symbols to read and write these scripts fluently.

The Literacy Research in Indian Languages (LiRIL) project longitudinally tracked students as they learned the Marathi and Kannada scripts from Grades 1-3 (see Figure 25). Thus, we got an opportunity to closely observe children move from emergent literacy skills towards fluency.



*Figure 25.* Reading assessments with a child during LiRIL. **Image Courtesy**: LiRIL Project.

Work done in Western contexts with children learning to read and write in English had alerted us to the idea that there may be discernible phases that children go through as they learn to read words (e.g., Ehri & McCormick, 1998).

Phases are characteristic ways in which learners read scripts at particular developmental levels and display both what they know and what they don't during that period of time.

Ehri and McCormick identified five phases of reading that young children go through as they learn to read the English script.

1. **Pre-alphabetic.** Children have very limited knowledge of letters in this phase, and attempt to read words by looking at pictures or guessing from context.

2. **Partial alphabetic.** Children begin to detect certain letters within words, and read by combining knowledge of context with knowledge of the sounds of familiar letters.

3. **Full alphabetic.** Children know all or most of the sounds for different letters. They engage in letter-by-letter reading and therefore can be quite slow at reading.

4. **Consolidated alphabetic.** Children begin to read in slightly larger chunks. For example, in English, they may be able to read –ing, or –ed as a unit, as well as other familiar groups of letters. Words are no longer decoded letter by letter. They are also able to read by analogy. For example, "pat" looks like "cat"; or "peak" looks like "beak". They are also able to read more frequently occurring words by "sight," without breaking them up letter by letter.

5. **Automatic phase.** Children become fluent or *automatic* in reading both familiar and unfamiliar words and have a variety of strategies for decoding unknown words.

# Phases Identified in the LiRIL Study

We were curious to see if we could identify similar phases as children learned to read Marathi and Kannada, because if we could identify systematic developmental progressions, then curriculum, pedagogy and assessment could be designed to support them. From our larger sample of 760 students, we closely tracked the word and passage reading of 48 students (24 from Karnataka and 24 from Maharashtra) as they moved from Grades 1-3. These students were selected to represent a diversity of academic achievement levels. We observed how the child approached the reading of words, the nature of the errors made, and the kind of strategies used for word reading. Not surprisingly, we were able to find discernible phases in word reading in these Indian scripts, as well (see Figure 26). In many ways, these phases resembled the phases identified in the West, but due to the unique nature of our scripts, they also differed from them in certain specific ways.

It is possible that the phases that children go through as they begin to read a script could vary depending on *how* children are taught to read the script. It is possible that an instructional programme that introduces the script in a very different manner from the ones we have observed may result in a different set of patterns of how children learn to read words. At the same time, we observed the same phases at both the sites that we studied – Karnataka (which uses the activity-based *Nali Kali* curriculum)



*Figure 26.* Children reading. **Image Courtesy:** LiRIL Project.

and Maharashtra (which uses the textbook-based *Balbharati* curriculum). This suggests that there is some robustness in these phases, and they could be useful to many educators working across the country. In this blog piece, we present a brief description of these phases (see Figure 27)[16].

**Pre-Akshara Reading**

- During this phase, the child does not attend much to the *aksharas* or print presented.
- The child may use other cues to read like picture
- If given opportunities to free-write, a child in this phase writes in scribbles, wavy marks, circles, etc.

**Partial Akshara Reading – I**

- The child begins to attend to *aksharas* while reading words in this phase, but this attention is inconsistent - that is, sometimes *aksharas* are attended to, and at other times, they are ignored.
- The child seems to understand that there is a sound associated with each symbol.
- In reading words, the child attends only to the *moolaksharas* and omits reading the *maatras*.
- This child is able to write a few *aksharas*. While writing words, the child may represent only few *aksharas* in a word, or may write incorrect *aksharas*. For e.g., माकड – कम.

**Partial Akshara Reading – II**

- The child can read simple words with few *maatras* during this phase.
- The child typically recognises 1-5 *maatras* ( ा ी ी ु ृ ).
- While reading, the child may not blend syllables into words, but may read syllable by syllable across words in a text without recognising word boundaries.
- Children are able to write a few simple words without *maatras*, like घर, वन.

**Pre-Akshara Reading – III**

- The child may succeed in decoding long words by breaking them into syllabic chunks.
- Commonly used *maatras* ( ा ी ी ु ृ ) can be recognised within words and the child reads these *maatras* consistently.
- The child can read *samyuktaksharas* in commonly occurring words, for example, आपल्या, तुमच्या, माझ्या (Marathi); ಅಪ್ಪ, ಅಮ್ಮ, ಹಬ್ಬ (Kannada).
- Children are able to write simple and frequently used words correctly. Words with the *maatras* ा ी ी are written correctly in both scripts.

**Full Akshara Reading**

- Most of the *maatras*, with few exceptions, are recognized consistently. Some errors may still be seen on rarely used *maatras*, or on *rasva* vs. *deergh maatras* (short and long versions of the same vocalic sound).
- Children may struggle with reading *samyuktaksharas* in longer words that have more than three *aksharas*, and in words where there is more than one *samyuktakshara*. In other words, children could still struggle with reading complex or unfamiliar words during this phase.
- Most of the words read in isolation are blended. In connected passages, there may be a small percentage of words which are not blended. These are mostly the longer words which are still sounded out syllable-by-syllable.
- Children at this phase can write simple words correctly, but make mistakes with words with *maatras* that are introduced late, and with words that have *samyuktaksharas*.

**Consolidated Word Reading**

- Children read faster and more fluently.
- Blending is consistent and the child is able to read with expression.
- Simple words are spelled correctly. But children still struggle with words with *maatras* that are introduced late, and with words with *samyuktaksharas*.

*Figure 27.* Phases of word reading in Kannada and Marathi.[17]

[16] This is a brief summary. For a more complete description of the phases, please refer Menon et al. (2017). *Literacy research in Indian languages (LiRiL): Report of a three-year longitudinal study on early reading and writing in Marathi and Kannada.* Bangalore: Azim Premji University; and New Delhi: Tata Trusts. Retrieved from https://azimpremjiuniversity. edu.in/SitePages/pdf/Liril_Final.pdf

[17] Adapted with permission from Subramaniam, S., Menon, S., & Sajitha, S. (2017). *The teachers' guide to literacy research. Part 1. Teaching and learning the script.* (pp. 35-38). Bangalore: Azim Premji University and New Delhi: Tata Trusts.

As we can see from Figure 22, the phases identified for word reading in Marathi and Kannada bear some resemblance to the phases identified by Ehri. It appears that while learning to read and write scripts, most children start by not understanding that the script needs to be attended to. They may try to make sense from the pictures or other accompanying cues. Later, children begin to understand that the script needs to be attended to, but it takes them some time to move from partially attending to it and attending to (and mastering) the script fully (see Figure 21). After they master the script, they work at becoming fluent at it – that is, they can read it automatically, at a good pace and with expression.

The main difference between English and the Indian scripts is how much time the child takes in going from "partial" to "full" mastery of the script. Ehri described this as a single phase in her work, while we were able to distinguish at least three sub-phases that children go through as they learn to read and write Marathi and Kannada.

The main reason is that Indian scripts, as mentioned earlier, have an extensive set of *moolaksharas*, along with secondary vowel diacritics (*maatras*) and symbols for conjunct consonant sounds (*samyuktaksharas*). Predictably, children don't learn all this at one shot. Initially, they attend to *moolaksharas* and fail to recognise or write *maatras*. Even when they start attending to *maatras* in words, they don't attend to all equally. They learn the ones introduced earlier, which tend to occur more frequently in words. Likewise, when they start becoming familiar with the *samyuktaksharas*, they are able to decode words with one or two such symbols, but longer words with more such symbols are often stumbling blocks for young readers.

We reiterate that we do not have evidence to state that these phases are natural or universal among all young readers and writers of Kannada and Marathi. What if the *maatras* were introduced early and taught along with the *moolaksharas* at the beginning? Would young readers, then, show a different sequence of phases? It is possible. Our claims are limited to the data set we have from the two sites and methods of teaching that we studied. Yet, since these methods of teaching are prevalent across India, we believe that the phases have some implications for teaching the script.

## Implications

1. The first implication is that teachers should be aware that children don't learn the script all at once. Predictable errors that children make should be understood as developmental markers of where the child is, and should be used to help the child progress.

2. A second implication is that more time than is currently allotted needs to be spent on teaching children to read and write Indian scripts. We found that very few children in our sample were at the "consolidated" or fluent phase of word reading even by the end of Grade 3. This suggests that children may take the first four or five years of schooling to acquire fluency with our scripts.

3. Third, introduce *maatras* along with *moolaksharas* in early grades, so that children learn to attend to both kinds of symbols simultaneously. *Samyuktaksharas* used in common words (e.g., अम्मा *amma*) can be introduced as "sight" words.

## Recommendations

Specific recommendations for helping children at different phases are:

- Very young readers can be encouraged to notice the text and the script. For example, teachers could point to the text while reading picture books aloud, so that readers notice that the symbols need to be attended to.

- Children who have begun to attend partially to *aksharas* can be cued to break up words into sounds. Initially, they could be encouraged to identify the sounds they begin with and end with; and later, they could be asked to identify all the sounds they hear in the word. This will help them better attend to the sounds in words.

- Games could be devised where words are presented without any *maatras*. Children who are not attending fully to *maatras* can be challenged to "spot the error" and insert *maatras* in the words.

- Children can be asked to "sort" words given to them on cards into words with different kinds of *maatras* or *samyuktaksharas*.

- Children can be taught to break up longer, more complex words into manageable chunks to read or spell them.

- Children who are at the full *aksharic* phase can be encouraged to begin reading short passages with expression and speed. Children can be paired. The task of the first child would be to read in a flat, expressionless manner. The partner would then have to read the same passage with expression and speed. The pair can switch roles for the next round.

- Teacher modelling is necessary at all points. Teachers need to model that they (a) attend to the text while reading; (b) attend to all *akshara*s while reading; (c) read with fluency and expression.

These are just a few of the many ways by which teachers can support children in becoming competent and fluent decoders of the script. Of course, decoding the script is just ONE vital aspect of a balanced literacy curriculum, so do remember to keep enough time for other important aspects as well!

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# OELP's Approach to Building Script Knowledge in Beginning Readers and Writers

## Keerti Jayaram

Keerti Jayaram writes about developing script knowledge in early readers and writers through a socioculturally relevant pedagogy and the *varna samooha* approach.

## Background

*Organisation for Early Literacy Promotion* (OELP)'s early literacy project developed out of an exploration that sought correlations between marginality and academic underachievement in reading and writing as they play out in formal schools and out-of-school spaces. The interventions that are conducted by this project are built on OELP's earlier experiences with young children who read and write mechanically in school and are unable to make any sense of what they are reading and writing. We were keen to engage with emerging literacy learners who are also new school entrants (see Figure 28).



*Figure 28.* A picture from an OELP classroom. **Image Courtesy:** OELP, Ajmer, Rajasthan.

*Figure 29*. This collage attempts to give an idea about the sociocultural context of OELP's work. **Image Courtesy:** OELP, Ajmer, Rajasthan.



*Figure 30.* Picture from an OELP project school in Delhi. **Image Courtesy:** OELP.

The idea was to explore feasible options that are available inside classrooms to address issues related to learner under-achievement in early literacy. Our focus was on strengthening the processes of reading and writing as they unfold inside classrooms in highly marginalised settings. It was also important to us that the interventions that evolve be grounded within the multiple and layered complexities of classrooms. These classrooms often reflect the stratifications within the larger social world they are located in; we found many young learners to have already internalised their place in the social world by the time they entered school. A majority of the children who attend these classes are from low-literate backgrounds and most often, they do not have access to supportive reading and writing environments at home or in their social worlds (see Figure 29).

The early years have been globally acknowledged to be the most critical for lifelong development. Therefore, this project was initially spread across Grades 1, 2 and 3 of six Municipal Corporation of Delhi (MCD) schools on the outskirts of the city (see Figure 30). The children who attend these schools come from various parts of the country. This provided us with the opportunity to engage with learners from diverse linguistic and sociocultural backgrounds.

*Figure 31.* Early days of OELP in Rajasthan. **Image Courtesy:** OELP, Ajmer, Rajasthan.

After a year of sustained work within this urban context, our project was relocated to government schools in rural Rajasthan (see Figure 31), where it continues. This is a drought-prone landscape where low-literate communities eke out a livelihood through daily-wage work, pastoral activity, subsistence farming or petty trade. The main language spoken in the area is Marwari, while Hindi is the medium of instruction.

Many of the children who come to early childhood settings come from home environments devoid of print, and lack this cultural capital of relating meaningfully to the written word. The onus is arguably greater in this context, to provide the emergent exposure to reading and writing, than it is in more literate societies. We take the position that young children should be provided with opportunities to participate as emergent readers and writers for an extended period of time (e.g., 3-6 years of age) before being expected to develop into conventional readers and writers (6-8 years of age) (Position Paper on Early Language and Literacy, Ambedkar University & Care India, 2016, p. 27).

# The Broad Framework

Through our engagement in classrooms and with research-based literature on early literacy and language learning, we identified some broad indicators as a framework to guide the evolving classroom pedagogies and practices, and to allow for conceptual clarity to emerge. These indicators are briefly described here.

## OELP's Pedagogical Framework

- Address the special needs of children who are engaging with the written forms of language for the first time when they enter school. Many of them are not conversant with the language of classroom transaction and require support to engage in the class.

- Provide a balance between a structured programme for building script knowledge, and opportunities for children to freely and actively explore written texts in a variety of ways.

- Utilise the inherent character of the Devanagari script, a transparent alphasyllabary that provides a symbol for each spoken sound.[20]

- Link reading and writing activities to the children's home languages and real-world experiences so that the process of acquiring script knowledge and decoding skills becomes meaningful for each learner in ways that are developmentally appropriate.

- Equip children gradually over two years to make a transition from their home language to the language of classroom transaction so that they can engage in class meaningfully.

- Provide children with a responsive and active classroom learning environment, and opportunities to engage with written and pictorial texts through planned as well as informal and authentic reading and writing opportunities.

- Provide opportunities for strengthening reading comprehension and higher order thinking skills, supported by rich and interactive classroom conversations.

- Involve the class teachers in the process of developing classroom practices

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[20] Other characteristics of the Devanagari script such as its spatial complexity and extensive nature have been discussed in detail in the blog piece "Nature of scripts" earlier in this book.

## The Evolution of OELP's Classroom Practices

The classroom practices used by the OELP project have evolved organically over a period of time through sustained interactions with children and teachers inside classrooms. These practices include teaching and supporting linguistic skills required for engagement with the sounds and symbols of the Devanagari script as well as the cognitive skills required for meaning construction and higher order thinking (see Figure 32). We have considered both these aspects of script knowledge as equally important and addressed them simultaneously.



*Figure 32.* Meaningful association of symbols with environmental print. **Image Courtesy:** OELP, Ajmer, Rajasthan.

The OELP classroom practices draw upon children's real-world experiences and spoken language resources to facilitate meaningful shifts from oracy to literacy. Our aim is to equip these beginning school-goers to become thinking and engaged readers and writers, and to make decoding a meaningful part of this process (see Figure 33).



*Figure 33.* Creating engaged readers and writers is at the heart of OELP's work.  **Image Courtesy:** OELP, Ajmer, Rajasthan.

We also recognise the importance of providing young learners with a conducive socio-emotional climate in the classroom as an essential and non-negotiable condition for facilitating learning. Our classroom experience has confirmed that a learning environment needs to be nonthreatening, stimulating and responsive to the individual needs of children from diverse sociocultural and linguistic backgrounds (see Figure 34). This ensures that children experience school positively and engage with classroom processes in meaningful ways. Through such engagement many children become confident learners with a positive sense of self, regardless of their social backgrounds and home environments.



*Figure 34.* Creating a safe and non-threatening learning environment.
**Image Courtesy:** OELP, Ajmer, Rajasthan.

## Evolving the *Varna Samooha* Approach

We began work through the Hindi *barahkhadi*[21] which was an unused resource available in the classrooms. It provides the various sound-symbol combinations available within the Devanagari script at the phonemic, alphasyllabic and syllabic levels.[22] Through our initial interactions we experienced that the *barahkhadi* had too much information for the children to process and was becoming a tool with which they were engaging

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[21] *Barahkhadi* refers to symbols showing all possible combinations of a particular consonant with the secondary vowel signs (or *maatras*), for instance, क, का, कि, की…

[22] These terms are clarified in the blog piece, "Nature of Scripts", which appears earlier in this book.

in a very mechanical way. This led us to the idea of breaking down the *barahkhadi* into smaller groupings or *varna samoohas*. These *varna samoohas* evolved over time as sets of a limited, select number of alphasyllables, vowels and abbreviated vowel markers or *maatras* (see Figure 35).

The *varna samooha* groupings evolved over one academic year through an organic process of intensive and sustained engagement inside the early grade classes of a few government schools in which our Early Literacy Project or ELP (as it was called then) was being implemented. The selection of the specific sub-lexical[23] components within each grouping was done through an active process of dialogue with teachers. Teachers and members of the OELP team used their intuitive knowledge and experience with young learners to select the components for each *varna samooha*. This was followed by a period of trial of using them inside classrooms and revising the *samoohas* based on the children's responses.

| V. S. no | consonants | | | | | | vowels | | | | | maatras | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | क | म | ल | न | प | | अ | आ | ई | | | ा | े | | |
| 2 | च | र | स | त | ग | | अ | आ | ई | ए | | ा | े | ँ | |
| 3 | ज | य | ह | व | 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 | त्र | ष | ख | | अ | आ | ई | ए | ऊ | ा | े | ँ | ॽ |

*Figure 35.* The six *varna samoohas* evolved at OELP.

While constructing the first two *varna samoohas*, we looked at the distinctiveness in the sounds and visual features of each symbol in the Devanagari script used for written Hindi. We also had a broad sense of the frequency of occurrence of the specific sound-symbols in Hindi and to some extent in the

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[23]  "Sub-lexical" refers to the constituent parts of a word.

spoken languages of the children, and picked symbols based on that. Another important consideration was the ease with which these sub-lexical units combined to generate words which are from within the children's spoken language repertoire and life experience. While making the selection of symbols for the first *varna samooha*, we looked for combinations that allow children to create words that are closely connected to them and are personally meaningful. For example, words used for the generic names of family members or the names of colours. Some teachers looked for sound-symbol combinations which generated rhyming words or sound patterns since they said children of this age group enjoy word play. So the children's natural learning behaviours also became a part of the selection criteria in informal and intuitive ways.

## Summary

The criteria used for selecting the *varna* and *aksharas* for each *varna samooha:*

1. Simple visual features and distinct sounds of *varna* or *aksharas* selected.

2. Ease of creating familiar words by combining the sounds of these *varna* or *aksharas*.

3. Possibility of creating rhyming words and poems using these *aksharas*.

4. High frequency of occurrence of these words in the child's environment.

The first *varna samooha* selects the consonants क, प, ल, म, न and vowels अ, आ, ई from the Hindi *varnamala*. All these sounds are fairly commonly heard and used by children. They can use these *aksharas* to create words such as  नाना, मामा, काकी, and पानी. All these words occur frequently in their surroundings. Figure 36 represents the *akshara* chart, word wall, and poem created based on the *akshara* sets included in *varna samooha* 1.

As explained earlier, the selection of the sub-lexical components for each *varna samooha* was an organic process which unfolded through our efforts to make decoding a meaningful process for young learners. In the situation of adapting this approach to other language offshoots of Devanagari, the existing components within each of the six *varna samoohas* may be reviewed so that they address the linguistic demands of the language being considered.

## Varna Samooha - 1

| Consonants and vowels | Akshar chart | Word wall | Poem poster |
|---|---|---|---|

**Consonants and vowels**

क प म ल न
अ आ ई

**Akshar chart**

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

**Word wall**

Thematic words

| काका | काकी | | काला | पीला |
|---|---|---|---|---|
| मामा | मामी | | लाल | नीला |

Rhyming words

| काला | माला | नाला |
|---|---|---|
| पानी | नानी | कानी |

**Poem poster**

माला लाना, माला लाना
नीली नीली, माला लाना

माला लाना, माला लाना
पीली पीली, माला लाना
माला लाना, माला लाना
काली काली, माला लाना

माला लाना, माला लाना
लाल लाल, माला लाना
माला लाना, माला लाना
माला लाना, माला लाना
माला लाना, माला लाना

*Figure 36. Varna samooha* 1 with the *akshara* chart, word wall and poem poster.

To give a recent example, we supported a partner organisation from Gujarat to adapt the *varna samoohas* to their context. During this process we ended up making minor modifications in each *varna samooha*, and to some extent, in their order of presentation. This enabled us to align with the phonology, orthography and vocabulary of spoken Gujarati in more nuanced ways. We believe that these adaptations are likely to make the engagement with the *varna samoohas* more meaningful for the Gujrati-speaking children who will engage with them in their classrooms.

## Pedagogical Objectives of the *Varna Samooha* Approach

The *varna samoohas* have been designed to help children understand the linkages between sounds and symbols at the sub-lexical, word and text levels simultaneously, so that they can experience these in interrelated ways. The underlying thinking is that children should not view written symbols as meaningless forms to be rattled off mechanically. Instead, they relate to these sound-symbol combinations as parts of familiar words (see Figure 37). This process occurs at increasing levels of complexity with available combinations increasing with the introduction of subsequent *varna samooha*.[24] The *varnamala* can be introduced in Grade 2 to familiarise children with conjuncts and so on.

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[24]  A pictorial presentation of OELP's *varna samooha* approach may be viewed through the web link:
http://www.oelp.org/wp-content/uploads/2018/07/Pictorial-representn-of-OELPs-Varna-Samooha-Approach_-July-2018.pdf

*Figure 37.* Creating words and sentences using the *aksharas* from *varna samoohas*.
**Image Courtesy:** OELP, Ajmer, Rajasthan.

The *varna samooha* approach focuses on the following aspects.

1.  **Phonological and orthographic processes** for exploring and building awareness of:

    - the sound units in spoken language.

    - the sound-symbol relationships in written language.

2.  **The processes of meaning construction** for understanding the sound-symbol-meaning relationships in written language, so that children are able to experience meaningless symbols as parts of familiar, meaningful written words (see Figure 38).



*Figure 38.* Meaningful engagement with words by asking the child to pictorially represent them. **Image Courtesy:** OELP, Ajmer, Rajasthan.

In the Devanagari script, the linguistic unit that corresponds to spoken sounds is the *akshara* or alphasyllable. In most schools, children are taught to decode written Hindi through the *varnamala*. The *varnamala* is described by some scholars as an inventory of alphasyllables and phonemes that represent the sounds of the Devanagari script arranged in terms of their place of origin (bilabial, dental, palatal etc.) and their manner of articulation (aspirated, un-aspirated and so on). Children are asked to memorise the *varnamala* and then use it to engage with structured word lists in predetermined ways. Through our interactions with young learners and individual reading observations inside classrooms, we experienced that since the *varnamala* does not always represent the sounds that children hear, it can become a stumbling block for beginning learners attempting to decode words in Hindi. Let us take the example of the word *paanii* (water). Our experience suggests that children are able to clearly identify the sounds that are heard at the syllable level, namely: /paa/ and /nii/ and then match them with their symbols (see Figure 39). However, in most schools, children are taught by fragmenting the word into: /p/ /aa/ /n/ /ii/, that is, the individual sound units within the *varnamala*. Since these are not the sounds the children hear, the decoding process, we have found, becomes much more challenging for them.



*Figure 39.* Engaging with sounds at a syllabic level to create words.
**Image Courtesy:** OELP, Ajmer, Rajasthan.

## The Classroom Process

The children gradually learn to recognise the sounds and symbols of all the sub-lexical components being introduced within a *varna samooha*. First, the alphasyllables are introduced, one at a time. The children engage with its shape and sound in a variety of ways. They engage with activities based on recognising the beginning sounds in children's names or names of familiar objects. Next, the children are introduced to all the possible combinations that are available in the *varna samooha* through an *akshara* chart.

There is daily recitation of this chart through actions that help internalise the short and long vowel sounds. These physical actions are game-like and enjoyable (see Figure 40).

Gradually, the children learn to actively manipulate the sounds and symbols available in an *akshara* chart and combine them to create written forms of their own spoken words. For example, a child may combine the sound-symbols *maa* and *mii* to construct the word *maamii* - a word for aunt - a person who is from within the child's lived experience, which makes it meaningful (see Figure 41).

The existing *varna samoohas* also absorb words from other languages with a phonology akin to Devanagari. We have come across words made by children in Bhojpuri, Bengali, Punjabi, and so on, which are the languages that children from diverse linguistic contexts speak at home. It is fascinating to experience, at times, the exuberance of a child who has just actively constructed her first written word. Once it dawns on the child that this written form represents something from her real world – a family member, a colour, or some object – she is likely to get hooked! From this moment onwards, it can become game-like and akin to a treasure hunt for words for some children.



*Figure 40.* An example of developing sound-symbol knowledge through games. **Image Courtesy:** OELP, Ajmer, Rajasthan.



*Figure 41.* Child identifying contextually relevant words from the word wall. **Image Courtesy:** OELP, Ajmer, Rajasthan.

*For it's here, right in the first word, that the love of reading is born, and the longer his reading is organic the stronger it becomes, until by the time he arrives at the books of the new culture, he receives them as another joy rather than as a labour.*

Ashton-Warner (1986, p. 16)

After a child constructs a written word from the *akshara* chart, she is required to draw a picture to illustrate its meaning. We consider this as an important step towards meaningful decoding. The visual representation of the word helps the child connect the written forms with the mental picture in her mind, and her drawing makes the written word meaningful for her. Contrary to a word card with a picture already on it, as is often the case in language classrooms, the meaning that each child represents through a drawing is unique for that child (see Figure 42).

For example, Figure 43 shows how in one class, the children's drawings for the word *paanii* (water) varied from drawings of drops, a bucket, a tap, a river, and a glass, to an earthen pot. Each drawing gave us a glimpse into the unique mental image that the word had created for a particular child. Through these processes, each child begins to experience inner connections with the written words they construct. During such activities, the children's spellings and drawings *are not corrected by the teacher*. This allows them to experience a sense of ownership of their words.



*Figure 42.* Visually representing words helps the child connect them to his/her world. **Image Courtesy:** OELP, Ajmer, Rajasthan.



*Figure 43.* Varied representations of the word water by children. **Image Courtesy:** OELP, Ajmer, Rajasthan.
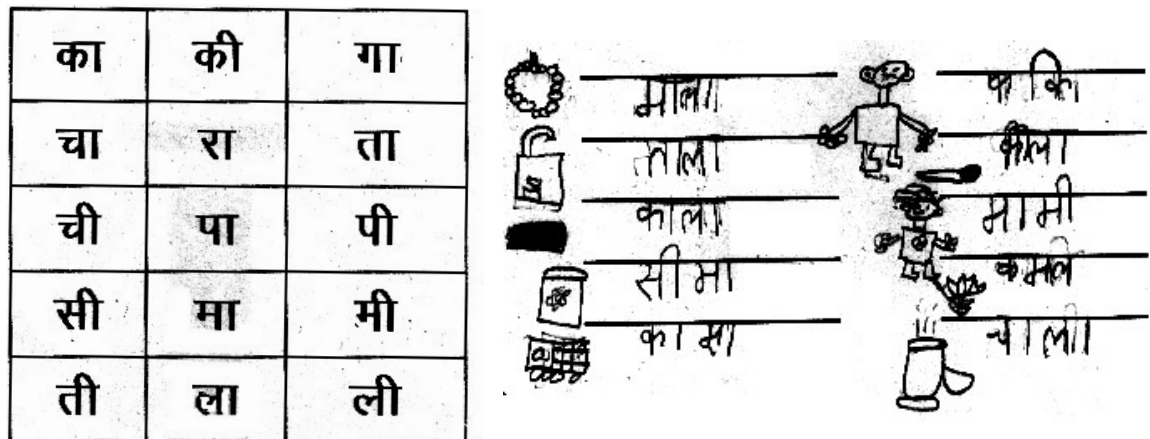
*Figure 44.* Words constructed by children using *aksharas* from the *akshara* chart.

It is important to realise that, through the above processes, children begin to actively experience the correspondence between the written and spoken forms of the words they construct. Figure 44 gives an example of words children create using syllables from the *akshara* chart. The *akshara* chart also provides opportunities for children to engage at appropriate developmental levels because of its inherent character that allows children to function at multiple levels. For example, some children construct simple bi-syllabic words by combining *aksharas* appearing next to each other in the chart. Their more proficient peers may, however, construct more complex polysyllabic words combining *aksharas* from different locations across the same chart. So even though children are actively involved in the same activity, they may actually be performing at different levels of complexity. This makes it a useful teaching-learning material for multi-grade situations as well as a tool for assessing learner levels. Once the children have acquired decoding proficiency within one *varna samooha*, the next one is introduced in a predetermined order, in a cumulative manner.

Sight word approach refers to the strategy of presenting children repeatedly with a small set of pre-determined and carefully selected words until they are learnt as a whole. The words are not broken down initially into their component phonetic parts. For example, words such as *is, am, the, and, man, book, that,* and *this* are presented as whole sight words, without teaching children to read them phonetically. A person's name could be another kind of sight word, taught as a whole.

Some words constructed by the children are corrected by the teacher and are displayed on a word wall so that they are visible to the children all the time (see Figure 45). We use these in daily word activities and games so that children engage actively with the written forms and meanings. Unlike the sight word or whole word approach, OELP does not provide children with predetermined word lists. This distinction is important as it highlights the active cognitive and linguistic processes used by the child to construct written words.



*Figure 45.* Children adding words to their classroom word wall.
**Image Courtesy:** OELP, Ajmer, Rajasthan.

We have also created little poems and rhymes from the words within a *varna samooha*. These are presented to the children through poem posters which are displayed in the class. Children recite these rhymes / poems with actions. They learn to read them with the help of the *akshara* chart (see Figure 46). It can be very motivating for a Grade 1 reader who, after reading an entire poem, begins to feel that she is now a reader.

Giju Bhai, in his book Prathmik Shala Mein Bhasha-Shiksha, makes a reference to a phase in a young child's reading and writing development that he calls "shabdon ki bahaar" or "springtime of words". He describes the exuberance with which young children who have unravelled the codes of the written script want to engage with the written word all the time (Badheka, 1987).



*Figure 46.* Child attempts to read a rhyme created from *aksharas* in a *varna samooha*. **Image Courtesy:** OELP, Ajmer, Rajasthan.

We discovered the same sense of excitement in some children's active engagement with written words, as described by Badheka. If the teacher allows them to explore, children can be found enthusiastically searching for words that they can form from the *akshara* charts. They compete with each other to find new words. They play word games. They engage with words in storybooks and classroom displays. We believe this is so because children begin to feel a sense of ownership and inner connection with the words that they create. This is empowering for them!

# Creating a Facilitative Language Learning Environment in the Classroom

It is important to note that the *varna samooha* approach is not implemented in isolation. We have tried to capitalise on the classroom as an authentic social setting, or a living context within which children can interact with each other through the written form. We try to get children to actively engage with a variety of displayed print in the class (see Figure 47). For example, children respond to each other through displayed messages; use written words from the word walls to play word games or participate in word activities. They write and respond to displayed riddles in the riddle corner, at times in their home languages. They share displayed rhymes, verses or poems through reading and writing. They read, look at, and talk about pictures or displayed writings. They listen to stories being read aloud or read story books, and then share their ideas and opinions about the story. There is time in the class to engage in meaningful conversations. Children are helped to write, draw and respond to storybooks through reader's response charts. They engage with curricular texts in meaningful ways.

All of these become ways through which these young learners interact and communicate with each other in authentic and purposeful ways, through a variety of texts and textual materials. The wall spaces in the classroom provide children with opportunities to freely use their home languages and invent spellings in their own ways. Thus, the walls of the classrooms become like buffer zones that allow children to use print freely, without being afraid to make mistakes. Our idea is that young learners should realise that reading and writing have deep connections with their lived experiences and inner worlds, so that they experience these as means through which they can relate to their worlds, and to each other.



*Figure 47.* Different literacy based activities in the classroom. **Image Courtesy:** OELP, Ajmer, Rajasthan.

*Children learn through shared book reading that books can be read for pleasure, that print contains meaning, that print has directionality, that writing and drawing can be used for expression and communication, that there are different genres of texts, and much more. When children come to formal educational settings from non-print contexts, they come without all this background knowledge and understandings about how print works. The onus is even greater on these settings to provide access to opportunities to develop such understandings that are not contingent upon the conventional mastery of the script. However, it is important to note that children coming to school from non-print contexts have a wealth of skills, knowledge, stories, songs, music and sheer vitality that children from middle-class families may not have. If this wealth is acknowledged and celebrated, it could enrich and vitalize the school community.*

Position Paper on Early Language and Literacy in India,
Ambedkar University and Care India (2016, p. 18)

## Conclusion

There are several challenges that OELP has come across, both in the urban and rural contexts. These have confirmed our belief that children who come from low-literate cultures need special attention. Our experience suggests that once children develop strong foundations in reading and writing within the first two to three years of schooling, they begin to engage more confidently with written texts. Our sustained engagement inside classrooms and with rural communities has reinforced the belief that if we want to regard schools as places where all children will learn, then it is vital that classroom processes engage with the specific sociocultural and linguistic contexts within which learning can occur. This allows the processes of reading and writing to become relevant and purposeful for the learners. As young learners begin to engage more positively with texts, they begin to influence their teachers' attitudes and beliefs about their capacities to learn, and a positive cycle of learning slowly begins to grow.

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# Combining Meaning–making with Decoding

Nilesh Nimkar

In this blog piece, Nilesh Nimkar from Quality Education Support Trust (QUEST) advocates an approach to teach decoding meaningfully and to build fluency. A central point of his blog piece is the importance of creating controlled and contextually familiar texts for children to learn decoding.

It was November 2009. I was observing a Grade 1 language class in a remote tribal school in north Maharashtra. The teacher had written the *varnamala* from अ to ज्ञ (the Devanagari *akshara* set used to write Marathi) on the left-hand side of the board and on the right-hand side there was the *barahkhadi*.

One by one, the children came forward, picked up the long stick from the teacher's table, pointed it at the *aksharas* on the left-hand side of the board, and chanted the corresponding sounds. The voices of the other children joined in a chorus to this chanting. This went on for quite some time, then they started with the *barahkhadi*!

I observed this for some time. Then I asked the teacher about her plan for the day. She said that the children had not memorised all the *aksharas* yet, so doing anything else was out of the question.

"For the past six months, I have been trying hard but they just don't get it. Some can remember the *aksharas* in the *varnamala* order. But they struggle to recognise them when they appear in a word," she complained.

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[25] *Varnamala* refers to the symbols representing the sounds (consonants and vowels) within the Hindi language.

[26] *Barahkhadi* refers to symbols showing all possible combinations of a particular consonant with the secondary vowel signs(or *maatras*), for instance, क, का, कि, की…
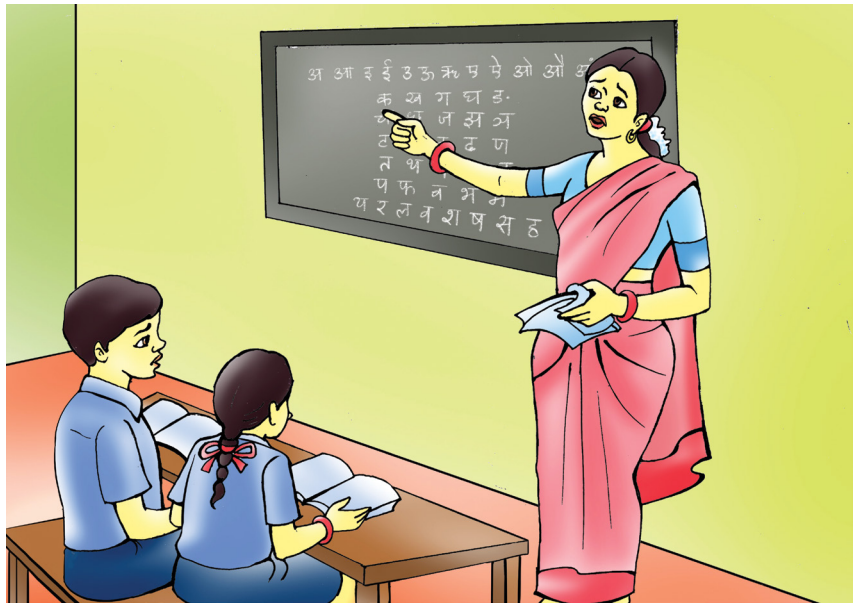
The teacher appeared to be genuinely hard working. She told the children stories regularly, she had collected some material to do hands-on maths activities, but her approach to teaching decoding was entirely traditional. She really believed that unless the students mastered the entire *varnamala*, it was pointless to teach them "reading".

This belief is common. Many of us who have studied in vernacular medium schools have learnt reading this way (see Figure 48) and finding an alternative strategy to teach decoding seems an unnecessary invention.

Decoding is necessary in order to make meaning when reading. We (LiRIL Team) found that students need to decode at at least 75% accuracy for them to even begin to understand the passages they were reading. In short, a child needs to be able to recognise atleast three quarters of the words being read in order to begin to comprehend (Subramaniam, Menon & Sajitha, 2017, p. 12).



*Figure 48.* Learning *aksharas* through repetition is a commonly observed pedagogical strategy. **Image Courtesy:** LiRIL Project.

Command on decoding is an important aspect of reading. Unless children decode with fluency, they struggle with reading. So it is important for a teacher to deploy a well-thought-of strategy to teach decoding.

Linguists classify most Indian scripts as alphasyllabaries or abugidas. Such scripts are written with the consonant-vowel sequence as a unit, in which the consonant is represented completely while the vowel notation is secondary. For example in the unit मी, the consonant म is seen clearly while the vowel ई is shown by an abbreviated vowel sign called *ee ki maatra* in Hindi or *deergh velantee* in Marathi. In this system, the *maatras* may appear on all sides of the letter (top, bottom, left and right), and the reader has to read the configuration or grouping as a unit, rather than reading them on the basis of their left-to-right position.[27]

Since the script has a unique symbol to represent each sound, it has a fairly regular (or transparent) sound-symbol correspondence. This could be considered a strength of the script in terms of aiding young learners to master it. Conversely, this feature of the script also makes the code very large and

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[27] The section on spatial complexity in the blog piece, "Nature of scripts" earlier in this book describes this in detail.

exhaustive, as every letter representing a consonant sound (around 30) may appear in combination with 12 to 14 *maatras*. The exhaustiveness of the code is further increased because the consonants are sometimes combined in even more ways to represent blended conjunct consonant sounds. For example, (sk), (st), and so on.

## Characteristics of Indian Scripts

1. They follow a transparent orthography, which means they have a fairly regular symbol-sound correspondence.

2. The script is very exhaustive with approximately 30 consonants and 12-14 *maatras*.

3. The script is visuo-spatially complex.

When you juxtapose the exhaustive code against the traditional way of teaching decoding where children are expected to memorize the entire *varnamala* and *barahkhadi*, you realize that this is quite a humongous task for young children! The traditional way hinges on the rote memorisation of set of meaningless symbols; hence, children are deprived of reading anything meaningful for a long time. So, what's the solution?

The strategy to teach decoding could be altered in order to reduce this burden of rote memorisation. In QUEST, we have developed a series of books named *Maze Pustak* (see Figure 49) that adopts an alternative approach to teaching decoding. This approach was first proposed and used successfully for Marathi by Maxine Berntsen in Phaltan, Maharashtra.[28]



*Figure 49. Maze Pustak*, a series of readers created by QUEST. **Image Courtesy:** QUEST, Sonale, Maharashtra.

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[28] Two blog pieces and a talk by Maxine Berntsen are included later in this book.

In this approach, rather than teaching the entire *varnamala* at one go, *aksharas* are introduced in groups, along with some *maatras* in a way that the children can decode controlled but meaningful written discourse even as they master the *varnamala* (see Figure 50).



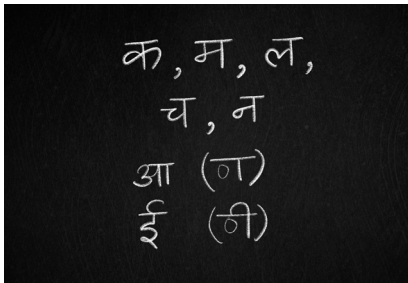*Figure 50.* Teaching *aksharas* and *maatras* together. **Image Courtesy:** QUEST, Sonale, Maharashtra.



*Figure 51.* First set of symbols.

For example, in Marathi, if the child is able to decode the set of *aksharas* and *maatras* shown in Figure 51, she could attempt reading some words and a short coherent piece of text in Marathi.

Examples of short texts children can decode using these symbols are provided in the box:

| | |
|---|---|
| काका आला का? | Did paternal uncle come? |
| आला. | Yes, he did. |
| मामा आला का? | Did maternal uncle come? |
| आला ना. | Yes, he came too. |
| | |
| काका काकी चला. | Uncle, aunty (paternal), let's go. |
| मीना आली का? | Did Meena come? |
| आली. चला. | Yes, she came. Let's go. |
| मामा मामी चला. | Uncle, aunty (maternal), let's go. |
| | |
| माला आली का? | Did Mala come? |
| आली ना चला. | Yes, she came. Let's go. |
| काका आला. काकी आली. | Uncle (paternal) came, aunty (paternal) came. |
| मामा आला. मामी आली. | Uncle (maternal) came, aunty (maternal) came. |
| मीना आली. माला आली. | Meena came. Mala came. |

Though these texts are controlled and may appear somewhat crafted, they are quite close to children's spoken language. Our experience shows that this type of predictive and repetitive texts is helpful in the initial stage of decoding. If they are illustrated, it helps with meaning making, too (see Figure 52). After the child has decoded the text, the teacher can follow it up with a discussion. One could ask simple questions such as, "What is this text about?", "Can you guess who the *kaka* is, in this picture?" "Why do you think so?', and so on.

These texts are normally organized according to difficulty level, taking into account parameters such as text length, sentence length, context, complexity of the plot or topic, and tone of the language used.



*Figure 52.* Illustrated examples of similar texts from the *Maze Pustak* book. **Image Courtesy:** QUEST, Sonale, Maharashtra.

Children with similar decoding abilities are grouped together, and they are asked to read a text of a particular level. The teacher moves among the groups and helps children whenever needed. Groups are reorganised from time to time based on ongoing, formative assessments, so that a child gets texts matched to her current decoding ability (see Figure 53).



*Figure 53.* Children learn decoding in groups. **Image Courtesy:** Sajitha S.

Sometimes, in schools where the teacher-student ratio is more than 1:50, it becomes difficult to manage small group work. In such cases, the teacher writes the text on the board and calls on a couple of children with similar decoding ability to read aloud and make sense of the text. Other students in the class observe them reading and extend help if needed.

Normally, the guided reading is followed by an extension activity. Children could draw a picture of what they have understood from the text, or the teacher can display some less familiar words from the text and ask children to decode them in isolation and use them in sentences (see Figure 54).



*Figure 54.* Guided and shared reading using children's literature.
**Image Courtesy:** QUEST, Sonale, Maharashtra.

This approach of using controlled text has many advantages. In no way do I want to suggest that this type of text is a substitute to the use of authentic children's literature in the classroom. In fact, children should be exposed to both types of texts simultaneously. However, the controlled or levelled texts open the world of meaning-making by decoding the text quickly to the child. Learning to decode and learning to make meaning go hand-in-hand. After the first two or three sets of symbols are learnt, learning of newer *aksharas* happens at a much faster pace.

Having said that, this approach also throws up some challenges. Children coming from different home languages and cultural contexts require different sets of *aksharas* to be used, so that the text they decode is meaningful. Moreover, we have observed that writing controlled, yet meaningful, texts is a demanding task for the teachers. However, considering its advantages, I believe that this path is worth exploring. Much deeper research is needed in this regard; and the support of publishers is also required, in order to ease the burden on individual teachers or schools.

Often, the innovations in teaching reading in Indian languages are heavily influenced by the research done for teaching the Roman script. Such strategies often neglect the critical difference between the scripts. If we really want to universalise literacy in a diverse country like ours, we will have to convert our classrooms into knowledge-generation centres, where teachers and university scholars do research collaboratively. One of the major areas for such research would be how to teach decoding in a language that uses an alphasyllabic writing system.

> QUEST has also created video resources on various topics of early language and literacy. Readers can access these videos using the following link: https://www.youtube.com/playlist?list=PLXZUSKGw_KMquSNeqzZieot0DcIBik2vW

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# The *Pragat Shikshan Sanstha* (PSS) Approach to Teaching Literacy in Indian Languages: Part I

Maxine Berntsen

In a two-part blog, Maxine Berntsen writes about the PSS approach to teaching literacy in Indian languages. Part I of this series discusses the nature of Indian scripts, and the importance of rooting early literacy instruction in children's day-to-day lives.

It has been said that no method of teaching reading and writing is so bizarre that someone cannot learn from it. That may or may not be so; and it is true that different children learn in different ways. But certainly, we can expect that an approach based on some conceptual clarity can enable large numbers of children to learn to read and write in a reasonable amount of time.

In India, discussions about teaching early literacy often deal with English and Indian languages in the same breath. While there are undoubtedly principles that are common to both, there are significant differences; and our discussions can become more intelligible if we talk about the two categories separately.[29]

The primary difference is that the fit of the script to the language is much better for Indian languages. This means that for every sound unit there is – by and large – one *moolakshara*/basic letter, and for every *moolakshara*[30] there is only one sound unit. The traditional method of teaching reading and writing Indian scripts was based on this regularity – and it would be a folly for us not to take advantage of it. At the same time, we have to acknowledge the fact that the traditional method required that

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[29] This is discussed in detail in the blog piece, "Nature of Scripts" earlier in this book.

[30] Strictly speaking, we must distinguish between a *moolakshara* – a basic unit – and an *akshara* which consists of a *moolakshara* with an abbreviated vowel sign: e.g., क (*moolakshara*) in contrast to का, कि, की, etc. For the purposes of this discussion, the term *akshara* will sometimes be used to cover both meanings.

the learner memorise all the *moolaksharas* (basic letters), then all the permutations and combinations of the *moolaksharas* with the *maatras* (abbreviated vowel signs), as well as *samyuktaksharas* (conjunct consonants) before learning to read meaningful words and sentences.

This was a time-consuming process, and probably worked because most learners came from high-caste families with at least some literate members who could help sustain the children's motivation to learn! The challenge for us is to adapt the traditional method, so that first generation school goers can succeed in reading or writing simple words and sentences early on.

In order to adapt the traditional method, it is extremely important that teachers clearly understand what is involved in teaching *aksharjnan*[31] (knowledge of letter-sound relationships) and reading and writing with meaning. What we have to understand is this: in learning to read and write, a child has to master the three-part package shown in Figure 55.
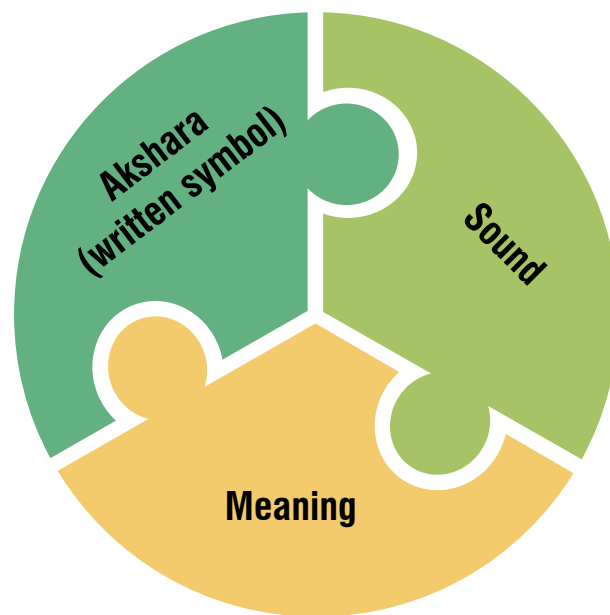


*Figure 55.* Relationship between *akshara*, meaning and sound.

So how does a teacher begin? Ideally, before starting formal literacy instruction, children should have had some experience of pre-primary instruction (see Figure 56).

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[31] Referred to as *akshara gyaan* in the rest of this book.

*Figure 56.* Children's engagement with different activities at a *Balwadi*. **Image Courtesy**: PSS, Phaltan, Maharashtra.

Phonology refers to how sounds are arranged and used in a language. In Hindi, syllables come together to form a word. For example, व and ड़ा come together to form the word वड़ा. Children can often be seen playing sing-song rhyming games where they manipulate the sounds of a word to create a chain of words. For example, in this particular case, it could be वड़ा, लड़ा, and बड़ा. This reflects their developing understanding of the phonology of the language.

But this is often not the case. Let us assume, then, that the students have not had any pre-primary schooling. But they have learned a great deal about the world around them. With regards to language, they probably know at least 4,000 words, can understand what others say to them, and can express themselves in simple sentences. They have generally mastered the phonology of the language, though they may have difficulty in pronouncing one or two sounds.

It is important to understand that this linguistic mastery is unconscious. The child uses the language for functional or expressive purposes, but does not think about his use of language. However, this is precisely what is required. The first stage is paying attention to the use of sounds.

Before trying to teach anything about *aksharas*, the teacher should help the children become aware of the sounds of words: beginning sounds, middle sounds, ending sounds, syllable divisions within words. Time spent on helping children become aware of sound units (phonological awareness)[32] is time well spent.

Once children gain some degree of phonological awareness, the teacher can start formal literacy instruction. Where, then, does she begin? Traditionally teachers followed the order of the script as laid down by Sanskrit grammarians. The version here is of the Devanagari script as used for Marathi (see Figure 57).

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[32] Phonological awareness is explained in detail in the blog piece, "Phonological and phonemic awareness-A brief overview," earlier in this book.

अ आ इ ई ए ऐ ओ औ अं अः
क ख ग घ

*Figure 57.* Symbols from the Devanagari script.

Since our goal is to motivate children to learn to read as soon as possible, let us ask ourselves what words children would be happy to learn first— or, to put it differently, which words carry an emotional charge for them.

When Datta Ahivale, my colleague in the PSS, and I asked ourselves this question as we were working out an approach to teach beginning reading in Marathi, we agreed that children in our area at least had a strong emotional response to words for close relatives – especially for mother (आई), mother's brother (मामा), and mother's brother's wife (मामी). We felt that along with these words we could have मी (I), हा (this— male), ही (this— female), माझा (my—male), माझी (my— female).

> *Pleasant words won't do. Respectable words won't do. They must be words organically tied up, organically born from the dynamic life itself. They must be words that are already part of the child's being.*
>
> Ashton-Warner (1986, p. 33)

With these words we could construct the following sentences:

| | |
|---|---|
| हा मी. | This is me (m.). |
| ही मी. | This is me (f.). |
| ही माझी आई. | This is my mother. |
| हा माझा मामा. | This is my maternal uncle. |
| ही माझी मामी. | This is my maternal uncle's wife. (See Figure 58). |
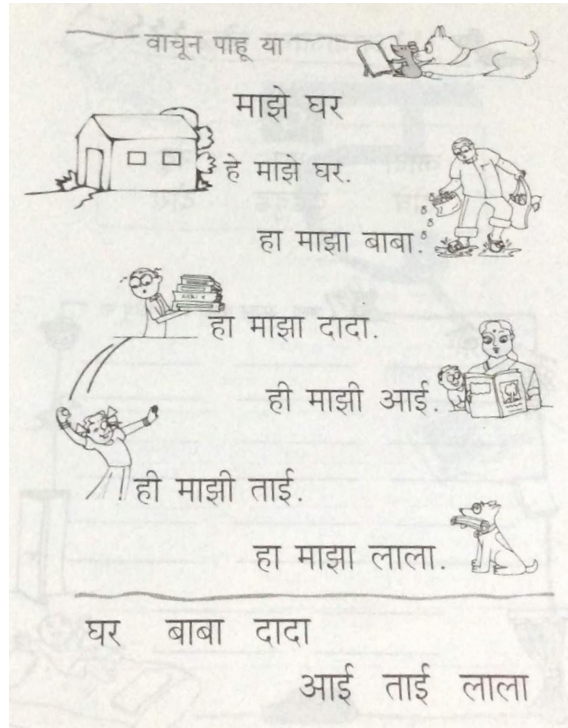
*Figure 58.* Text using words and illustrations contextually familiar to the child.
**Image Courtesy:** *Vaachu Ya, Leehu Ya, Gram Mangal* Maharashtra.

Now, in order to read these sentences, what *aksharas* does a child need? Let us set aside आई for now. For the remaining words a child needs to learn म, ह, झ, along with the *kana*, the abbreviated vowel sign for long /aa/ ('ा') and the *velanti*, the abbreviated vowel sign for long /ii/ (' ी'). The word आई can be taught as a sight word – a word to be learned as a whole, without breaking it down into its component parts –because although it is essential for the context, introducing the *moolaksharas* आ and ई in the same lesson as we have the abbreviated signs (*kana* and *velanti*) could be confusing to the learner.

## Summary

Note what we have done here. To begin with, we have chosen emotionally charged words, and identified which letters are required to read these words. Each of these words also requires one or two *maatras*, abbreviated vowel signs. In this case, they are the *kana* and *velanti*. By introducing these signs right from the first lesson, we have immediately opened up the child's reading vocabulary. After doing this for three or four lessons, we make it possible for a child to read a large number of words in a short time.

In Part II of this blog, I discuss briefly how one goes about teaching *aksharjnan* using this approach. I also want to stress that the systematic teaching of letter-sound recognition is only one part of the overall approach developed by the PSS. The early primary language classroom has to have a rich mix of talking, listening to and telling stories, looking at books, singing, drawing, painting and play of all kinds, in addition to the teaching of the script.

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# The PSS Approach to Teaching Literacy in Indian Languages: Part II

## Maxine Berntsen

In Part II of her blog, Maxine Berntsen emphasizes that forging of the symbol-sound relationship should be done in a manner that is meaningful and not burdensome for the students.

## Forging the Link between Symbol and Sound

I ended Part I of the blog by laying stress on the fact that teaching *aksharjnan*[33] (knowledge of letter-sound correspondences) is only one part of the PSS approach. The early primary language classroom has to have a rich mix of talking, listening to and telling stories, looking at books, singing, drawing, painting and play of all kinds (see Figure 59). The structured lessons for explicitly teaching the script must be understood as being embedded in this mix of language activity.



*Figure 59*. The *Balwadi* classroom at PSS has different corners for reading, writing, art and play. **Image Courtesy:** PSS, Phaltan, Maharashtra.

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[33]  Referred to as *akshara gyaan* in the rest of the book.

"...I have always insisted that words used in organizing a literacy program come from what I call the 'word universe' of people who are learning, expressing their actual language, their anxieties, fears, demands, and dreams. Words should be laden with the meaning of the people's existential experience, and not of the teacher's experience" (Freire, 1983, p. 10).

The first letters to be taught, you may recall, are those needed to write emotionally charged words, like मामा (mother's brother), and मामी (mother's brother's wife). The word for "mother" – आई– is treated as a sight word (a word to be learned as a whole, without breaking it down into its component parts). I want you to keep these things in mind as you read the following discussion. Otherwise, you might feel that I am advocating a dry, de-contextualised approach.

Once we have developed a set of lessons based on the approach I described in my last blog, we might think that our work is done; from here on, teachers can take up the material and use it successfully in the classroom. But that is not the case. Given a set of about four *moolaksharas* and a couple of *maatras* (abbreviated vowel signs), how does a teacher go forward?

One of the most common strategies that I have seen used in many Indian classrooms, proceeds in the following way. The teacher writes the symbols on the board and reads them aloud a number of times. Then she asks the children to repeat (shout!) the sounds after her. After that, she asks each child to go to the board, point at each *akshara* and say its sound. This might go on until every child has had a turn (which could mean 30 or more turns!). Finally, the teacher asks the children to write the symbols on their slates.

At this point, the teacher feels she has done her job: the children have made the link between symbols and the sound. And in some cases, she may be right. There are children who are able to make this link very quickly. But for many, this strategy is not adequate.
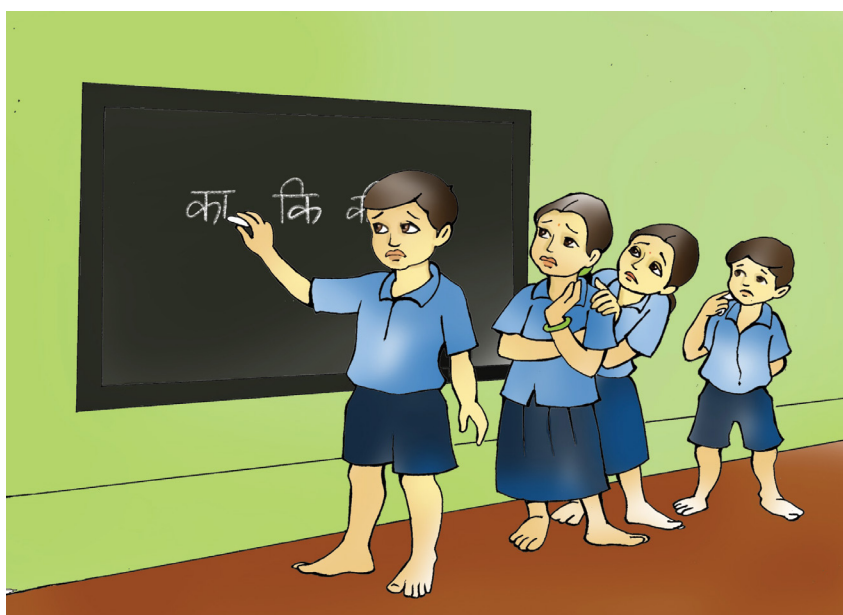
Before I talk about the inadequacy of this strategy, I want to say that this teacher has understood some things, and has done some things right.

Having conceded all this, why do I argue that this strategy is inadequate? First off, it is boring, and many children quickly cease to pay attention. But more importantly, it does not do justice to the cognitive task at hand. Forging a link between symbol and sound is not quite as simple as it may seem. For the first couple of lessons, at least, the teacher probably has to concentrate for a while on a single *akshara*.

- The teacher understands, first of all, that the children have to link the visual symbol with the sound.
- She understands that for the majority of children this linkage does not happen instantaneously; it needs repetition.
- She also realises the need for children to learn to write the symbol soon after it has been introduced.

Within the constraints of this blog, let me deal with just one sub-question: how does a teacher help the children learn an *akshara* – that is, how does she help them forge the link between symbol and sound?

Once the children grasp the rationale behind what they are doing, they can proceed at a much faster rate. (Of course, it is impossible to imagine that all children reach an understanding at the same time using the same method.)

As I have said above, forging a link between sound and meaning is not as simple as it seems; and the teacher must have conceptual clarity about what is involved. This means that, first of all, children have to become aware of the sound units of the language. As I mentioned in my previous blog, the fact that children can speak the language means that they have knowledge of the sound system. But to forge a link between symbol and sound, they have to be able to turn their gaze (or ears?) inward and think about the sound units.

When I first conceived the PSS approach, I assumed that each lesson would require about a week to teach. However, my colleague Datta Ahivale, an experienced and intuitive teacher of young children, quickly realised that the first lesson would need about three weeks.

*Figure 60.* Finding and circling *aksharas*. **Image Courtesy:** QUEST, Sonale, Maharashtra

The next step is for the learner to cognise (perceive/become aware of) the visual symbol. In some cases, there are substantial differences between one symbol and another—for example, the Devanagari *moolaksharas* म and ह. In other cases, the difference may be minimal, as in: ब and व. Thus, in introducing a symbol, one of the things that the teacher can do is write 15-20 symbols on the board, including four or five instances of the symbol she wants to focus on. Then she can ask several children to take turns coming to the board to identify and circle one *akshara* (see Figure 60). She might also ask the children to look around the room to find objects whose names are written using the letter in question. Or, she could also ask children working individually or in pairs to find the letter in newspaper cuttings and circle it.

Though some practitioners feel that it is not necessary to teach the writing of an *akshara* immediately, I would argue that the visual and tactile experience of drawing the letter helps fix it in the child's mind. Preferably, this should be done on a slate. A slate is ideal for writing a jumbo-size letter. The fact that it can be erased innumerable times is an added bonus. If slates are not available or convenient, children can be asked to write on the blackboard or even on the ground (see Figure 61).



*Figure 61.* Using slates to practice writing on. **Image Courtesy:** LiRIL Project.

*Figure 62. Akshara* cards made from sandpaper for children to trace their fingers on. **Image Courtesy:** *Anand Niketan School*, Sevagram, Maharashtra.

In addition to using the slate or the floor, a child can run his finger over a large *akshara* cut out of polish paper, or an *akshara* made from a fairly thick cord (see Figure 62). In classrooms where children sit on the floor, the teacher can write the *akshara* in front of each child, and have him trace it with a piece of chalk, or simply with their finger. The children could also trace the *akshara* in the air, or "walk" it. Tracing an *akshara* on the hand – or, even better, the back— of a classmate is a favourite technique. Whatever tool is used, the important thing is that the children keep saying the sound of the *akshara*.

Note that I have said, the *sound* of the *akshara*. One of the biggest mistakes teachers make is to teach an *akshara* by associating it with a single tag word— for example: ग, ग गणपतीचं ("g, g, as in Ganpati"). This is an instance of what I call cognitive clutter. In doing reading assessments, I have found that many children identify the *akshara* with the tag word. In other words, seeing the *akshara* ग, they will just say गणपतीचं (see Figure 63).



*Figure 63.* Using tag words to teach *aksharas*. **Image Courtesy:** LiRIL Project.

In her book, *What Did You Ask at School Today?* (2009), Kamala V. Mukunda talks about the limits of the working memory (p. 64). The implication of this is that a person has only a few seconds to hold on to a new piece of information. Thus, if a child has learned to identify ग as ग गणपतीचं, he has probably reached or surpassed the limits of his working memory. Later, if he has to read a word with several *moolaksharas* and *maatras* he gets so distracted by the clutter that he cannot hold onto the word.

Another common mistake teachers make is to assume that once they have presented an *akshara* and the children seem to have grasped the link between its shape and sound, this particular learning task is finished. We must never forget that learning to be literate is entering a new, completely unfamiliar territory. (This, of course, pertains particularly to those children who have not been exposed to books and other reading material at home, and have not attended pre-primary school.) Learning new information of any kind requires reinforcement.

It is not possible to go into detail about techniques of reinforcement here. But I would like to make a few comments. The discussion above suggests the importance of forging the link between symbol and sound by engaging the senses of hearing, sight, touch, and body movement. After they learn 8-10 *aksharas*, they can play games like Bingo and simple versions of Rummy.[34] On the playground, they can draw letters in the sand, or form them by using flowers, pebbles, seeds (see Figure 64).



*Figure 64.* Using different objects such as *bindis*, peanut shells, jute thread to trace *aksharas*. **Image Courtesy:** *Anand Niketan School, Sevagram,* Maharashtra and PSS, Phaltan, Maharashtra.

The teacher can use her imagination to devise other ways in which this can be done (see Figure 65).[35]
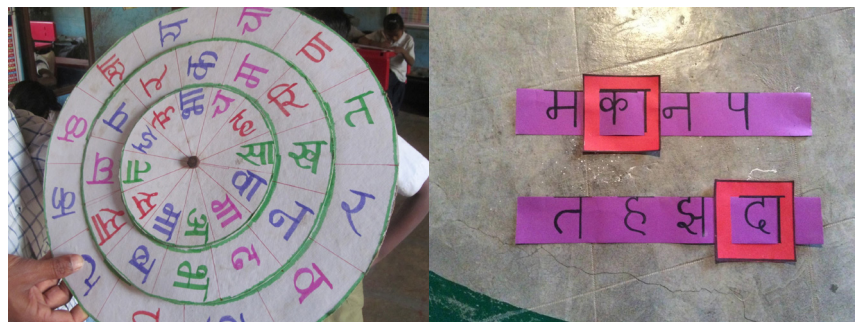


*Figure 65.* Different kinds of TLMs used to teach *aksharas*. **Image Courtesy:** *Anand Niketan School,* Sevagram, Maharashtra and PSS, Phaltan, Maharashtra.

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[34] A quick Internet search will give an overview of some of the possibilities for using Bingo and Rummy.

[35] ELI's practitioner brief on learning the script discusses  principles to guide reading instruction as well as provides many activities like the ones mentioned here to reinforce children's initial learning of the script. Pydah, A (2019). *Learning the script*. Hyderabad: Early Literacy Initiative, Tata Institute of Social Sciences.
Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/08/ELI_Handout_6_Learning-the-Script.pdf

The suggestions given here should not be understood as prescriptive. We know that children differ in learning style and pace. Even the same child needs a mix of learning experiences that complement each other. The more a teacher can tailor reinforcement activities to the needs and interests of individual children (or small groups) in her class, the better.

Finally, I want to reiterate that this systematic teaching of sound-symbol correspondences, important as it is, must not completely take over the language classroom. Time has to be given to discussion, storytelling, story read-alouds, looking at books, drawing, painting, craft, drama, songs, riddles, play (see Figure 66). At the beginning, children have much to say, but cannot write. However, the teacher can write a sentence or two from something a child has said, and have him copy it. Alternatively, if children have been encouraged to use inventive writing, they can write first, and the teacher can rewrite it in conventional script.



*Figure 66.* Different activities at the KNB *Balwadi*. **Image Courtesy:** PSS, Phaltan, Maharashtra.

Readers can view videos of the PSS approach to teaching literacy at https://youtu.be/ElFrpZvI-Ww and https://youtu.be/Ytj0GWxv-fk

In short, our language instruction requires a core of rigour, but it must contain a variety of activities and approaches that touch on the lives of the children we work with, and as far as possible, take cognisance of the variation in their needs and interests.

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# Teaching and Learning the Script – Bringing it All Together

## Harshita Das

Teaching children to decode the script continues to remain one of the most crucial and challenging aspects of many Indian classrooms. Through the different pieces in this book, we have explored and understood a few important aspects about this topic. Harshita Das summarizes our learnings in this concluding piece.

In many Indian contexts, teachers spend a lot of time teaching young children the script, yet, we grapple with poor learning outcomes when the results of assessments come in. Some of us are so concerned by the undue emphasis on script acquisition in our contexts, that we have swung to the other end of the pendulum and embraced whole language - a core tenet of which is that immersion in richly literate environments along with teacher modeling and guidance is sufficient to help children become literate. Yet, the research evidence suggests that the solution is not as simple as that - most children need explicit and systematic guidance in acquiring the script (see Figure 67).



*Figure 67.* Teaching script explicitly. **Image Courtesy:** *Kamala Nimbkar Balbavan,* Phaltan, Maharashtra.

Many of the pieces in this book, therefore, call for a balanced attention to script acquisition. It is clear that teaching decoding cannot be limited to teaching the letter-sound connections, or *akshara gyaan*, while we lose sight of other equally important aspects of early language curriculum. How, then, do we ensure that we have a balanced approach to teaching decoding?

The theme *Teaching and Learning the Script* was dedicated to exploring this question - what knowledge-bases does a teacher need in order to teach scripts effectively in Indian contexts? Of course, being perspectival in nature, many of the pieces do not offer "how-to" advice to practitioners. For information at this level, we refer them to ELI's Practitioner Briefs series[36].  As we conclude, it's important to look back at what we have learnt, what we see in a new light, and the gaps that remain.

At least three pieces in this book explored the theoretical foundations of understanding alphasyllabic scripts, such as the ones used by many Indian languages. In the first piece of this book, Shuchi Sinha and Shailaja Menon helped readers understand three kinds of writing systems (although there are more  than three kinds of writing systems in the world!). The authors highlighted, in particular, what is unique about the nature of many Indian scripts – that they are alphasyllabic in nature. Their piece informed readers about the difference between alphasyllabic and alphabetic scripts (such as the script used by English). What are the implications of this for teaching and learning different kinds of scripts in the classroom? (See Figure 68). The idea behind this somewhat dense, theoretical piece was to make readers familiar with the key concepts that they would need to understand and evaluate the ideas presented in other pieces of this book.
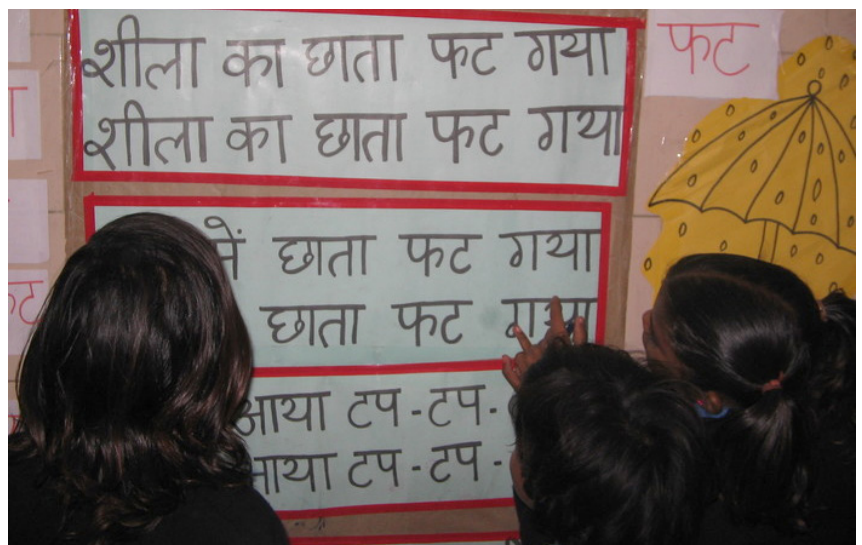


*Figure 68.* Children reading the Devanagari script. **Image Courtesy:** PSS, Phaltan, Maharashtra.

Elaborating on the characteristics of alphasyllabic scripts, Sonali Nag highlighted key findings from a longitudinal research study she conducted on reading acquisition in Kannada. Her piece helps find some answers to questions as to why children find it difficult to learn extensive and visuo-spatially complex Indian scripts, such as Kannada. It also exposes the myth that learning to read Indian scripts is easier than learning to read English.

Drawing upon their longitudinal research study, Literacy Research in Indian Languages (LiRIL) Shailaja Menon, Sajitha S., and Neela Apte presented five phases of word reading that they were able to identify as children learned to read Marathi and Kannada. Contrasting their findings to those from similar studies on the acquisition of alphabetic scripts, the authors pointed out that they were able to identify at least three sub-phases that children went through from partial to full mastery of scripts, whereas this is typically described it as a single phase in the literature from English-speaking contexts.



*Figure 69.* Engagement with children during Sonali Nag's (2007) longitudinal study and LiRIL (2017). **Image Courtesy:** *The Promise Foundation,* Bangalore, Karnataka and LiRIL Project.

Another theoretical idea introduced in this book is related to phonological awareness (PA). Harshita Das and Shailaja Menon suggest that a conscious or systematic focus on phonological awareness is largely missing in most Indian classrooms. The piece establishes the centrality of PA for learning to read, and helps readers understand a few simple strategies for introducing PA in their classrooms. The authors argue that it is not enough to teach children the symbols without helping them to become aware of and manipulate the sounds. Our blog pieces are not the places where ideas for practitioners are fully elaborated upon; but, a few useful activities for getting started with PA instruction are described in this piece.

In addition to pieces that build the readers' understanding about theoretical concepts like scripts and PA, several pieces in the book also came from highly experienced practitioners who shared key aspects of the literacy models they have evolved in their early language classrooms. Keerti Jayaram from OELP (Ajmer, Rajasthan), Nilesh Nimkar from QUEST (Wada, Maharashtra), and Maxine Berntsen who worked on the early language curriculum at PSS (Phaltan, Maharashtra), each presented extremely useful insights for introducing emergent learners to Indian scripts.

To summarize, here are some of our key take-aways that we could glean from the blog pieces:

1. It is important to understand the advantages and challenges of the script we teach. While there is a high correspondence between symbol and sound in Indian scripts, they are also extensive (have a large number of symbols) and spatially complex. So our decoding programmes need to be designed to suit these features.

2. As Indian scripts are quite extensive, we can start with teaching children a manageable cluster of *aksharas* that include *maatras* so that meaningful words can be formed.

3. This cluster needs to be based on considerations such as familiarity of sound to the child, the possibility of creating contextually relevant words from that cluster, and ease of learning.

4. The *varnamala* can be divided into various such groupings, each grouping slightly more complex than the earlier one.

5. Provide ample time to teaching the first few clusters of *aksharas*.

6. Use *aksharas* from these groupings to create words, poems, and other controlled texts for children to learn and practice reading from. Don't wait until all the *aksharas* and *maatras* are learnt to introduce children to meaningful words and text.

7. Phonological awareness is an important aspect: it should be well supported, even as we introduce decoding.

8. Encourage practice and repetition, not through rote methods but through a variety of meaningful and engaging activities.

9. Learning the script should only be a part of the entire language and learning curriculum in early years. Especially to establish relevance for learning literacy, it is important that children are immersed in a print-rich environment and given exposure to a wide variety of literacy-based activities such as storytelling, read-alouds, talk, reading, and guided and independent writing.

We conclude by considering certain aspects of teaching and learning the script that we did not address in this book. Supporting children in becoming fluent readers is something we have not addressed here. Reading fluency is an important topic, and one that we have missed out on, here. However, a few of our Practitioner Briefs might be helpful to readers in thinking about supporting aspects related to fluency in the classroom[38]. It would also have been ideal if we could have touched more on the teaching of the English script, but our focus was on introducing readers to the idea that Indian scripts pose unique challenges. Therefore, we have left out a consideration of supporting the acquisition of the English script in this book. Nevertheless, we have covered a lot of ground here. We hope that these perspective building pieces prove to be useful to the reader!

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[38] These briefs have been added as "Practitioner Friendly Resources" under the "Annotated Reading Resources" of this book.

# TALKS, ESSAYS & OPINION PIECES

# Teaching and Learning Early Literacy: The Need for Conceptual Clarity

Maxine Berntsen

This talk was given as the keynote address at the *National Conference on Early Literacy* in December 2017. The conference was organized by the Centre for Early Childhood Education and Development (CECED), Ambedkar University and Early Literacy Initiative (ELI), Tata Institute of Social Sciences Hyderabad (Dec 14-15, 2017).

It is an honour and a privilege to be here today to deliver the keynote address for this national conference on early literacy. I am grateful to the organizers for giving me this opportunity. Three decades ago, I wrote a short article (1984) lamenting the fact that while in Western countries there were intense debates going on about how to teach children reading and writing, in India there was relatively little discussion of this issue. When I wrote the article, I expressed the hope that there would soon be a nationwide debate on the teaching of beginning literacy, but nothing of the sort happened.

However, over the last two or three decades, things have begun to change. On various levels – central and state governments, international organizations, funding agencies, NGOs, academic institutions, informal networks and individuals have been focusing on various aspects of teaching literacy in the early years.

Just two weeks ago when I was in Pune, I suddenly realized how far we have come. The *Pragat Shikshan Sanstha* (PSS), in collaboration with the *Tata Trusts* and *USAID*, was hosting a state level conference on child literacy (see Figure 70). About 200 participants from all over Maharashtra had come together to discuss various aspects of teaching language and literacy in the pre-school and early primary grades (see Figure 71). Almost all of them were classroom teachers or librarians.

*Figure 70.* Conference on early literacy organized by PSS, in partnership with USAID and Tata Trusts. **Image Courtesy:** PSS, Phaltan, Maharashtra.

The level of passion and commitment was amazing. One librarian talked about how she, as an out-of-school child, had learnt to read by studying scraps of newspapers she stole from *kirana* (local grocery) stores. Now she is determined to provide access to books to the children in her village. A non-tribal teacher talked about making word lists in tribal languages such as Pawari and Bhiloli. One man described how seeing writing by children from the *Kamala Nimbkar Balbhavan* (the school run by PSS) inspired him to have his students do creative writing.

I had to leave before the last session was over, but I understand that a number of teachers said that they wanted to learn more theory, and would like to meet with academics from time to time.

That recent conference in Pune and our present conference, along with the background of activity on various levels over the past two or three decades, are all making me guardedly optimistic that we are reaching a tipping point—a breakthrough in formulating a national consensus on the necessity and means of helping each child in our country to become literate in the fullest sense of the word.



*Figure 71.* Representation of different organizations at the conference.
**Image Courtesy:** PSS, Phaltan, Maharashtra.

## Our Present Conference

Our present conference is focused on two themes: Contextual understandings of language and literacy; and understanding student learning. I wish to argue that in order to understand children's learning literacy (or failure to learn it), we must first have a clear conceptual model of the process of teaching and learning to be literate.

The more I thought about this model, the more I realized that it needed to be spelled out in detail. So I am going to try to do this. I hope you won't find it too dry. If time permits, I will share a brief story and a poem.

In the remainder of the conference, speakers will be talking about the social background of learners, multilingual contexts, methods or approaches— topics that have a little more of the warm blood in the veins.

I hope you will bear with me if I try to bind together the various aspects of my address with an autobiographical thread. What I am attempting to do is share with you my own conceptual journey in understanding the theory and practice of literacy.

## Autobiographical Interlude

I first came to India in 1961— to Hyderabad – at the age of 26. I had finished my Master's in English, and had taught one year in high school, and two in a Midwestern college. In Hyderabad I had a job as a lecturer in English in Vivek Vardhini College, and stayed in the home of the founder and principal of the college, Dr. S.D. Satwalekar and his wife Dr. Shantabai Satwalekar. Dr. Shantabai was an obstetrician and gynecologist, and the first woman doctor to open a private clinic in Hyderabad.

I still vividly recall the day June 12, 1961, when the Satwalekars came to receive me at Begumpet airport in Hyderabad. As we were standing next to their car, Dr. Shantabai turned to the driver and said something to him in Telugu. At that point a *sherwani*-clad Muslim gentleman came over and greeted the Satwalekars in Urdu. Then, Shantabai said something to her husband in Marathi. Finally she turned to me and said, "We'll teach you three languages!"

*Figure 72.* Maxine, during her early days in Hyderabad. **Image Courtesy:** Balkrishna Kirloskar

At the beginning, of course, the only language I knew was English. Within a few weeks of my arrival my friend Leela, who had arranged the contact for my getting the job in Vivek Vardhini, took me to her village in North Karnataka. There was a young man who was a servant in the house. He was illiterate, but at least quadrilingual. As I recall, he knew Kannada, Telugu, Tamil, and Hindi/Urdu. I was told that he looked at me scornfully, and commented, "What's the use of all her education? She can't even talk!"

In Hyderabad, too, I became aware of the limitation of being monolingual. Shantabai knew hundreds of people, from impoverished women, wealthy jewelers to the Nizam himself. When she introduced me to people, most of the time I could only smile, trying to look as pleasant as possible – something which I could sense she found irritating. In Leela's home I was unable to communicate with her mother, who knew only Telugu, and perhaps Kannada.

Determined to learn some Telugu, I asked Shantabai to arrange a tutor for me. At her request, Rev. Stanley Peter, the principal of the Methodist Boys' High School, agreed to be my teacher, and he soon became a good friend as well.

*Figure 73.* Meeting with Nehru which has been described by Maxine in the text. **Image Courtesy:** Maxine Berntsen.

By the end of the first year I became acutely aware that the Satwalekars were my Indian family, but beyond मला पाहिजे ("I want") and मला नको ("I don't want"), I knew nothing of Marathi, their mother tongue. I told Shantabai that I wanted to learn Marathi, so in May 1962, she sent me to Pune for a month to begin my study under the tutelage of  Sadashiv Bhave, professor of Marathi at Fergusson College. She also advised me to meet Dr. Irawati Karve, distinguished professor of anthropology, who had been Shantabai's classmate in *Huzurpaga*[39], the well-known girls' school in Pune.

Once back in Hyderabad, I continued my work in Vivek Vardhini  (VV) College, and my tutorial sessions in Telugu and Marathi. A couple of months later, in the company of an American woman friend, two male VV faculty members and a group of male students, I participated in a whirlwind trip in North India: Delhi, Shimla, Srinagar and Gulmarg. A highlight of the trip was sitting at the feet of Jawaharlal Nehru (see Figure 73), though disappointingly, instead of addressing my friend and me, he asked our group leader who we were!

After two years in Hyderabad I returned to the U.S., where I spent three years at the University of Pennsylvania doing the coursework for a Ph.D. in linguistics, and also studying Marathi and Telugu.

In 1966, I returned to India, this time going to Phaltan, a taluka town in Western Maharashtra, in order to do the field work for a dissertation on sociolinguistic variation in the Marathi speech of Phaltan.

It was a propitious time. The linguistic state of Maharashtra had come into existence six years before. The Textbook Bureau was established in 1968, and the first edition of *Balbharati* for Class I was published shortly afterwards (see Figure 74).

At that time I was busy with my dissertation, so I did not see the book for a number of years. But when I did, I was very impressed. The book was beautiful – printing, paper, art work all were of the highest quality – a tradition that *Balbharati* has maintained up to the present day.



*Figure 74. Balbharti* textbook (1968 ed).

But the most remarkable aspect of the book was the writers' imagination, sensitivity, and pedagogical acumen.

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[39]  Established by *Maharashtra Girls Education Society* (MGE) in 1885, *Huzurpaga* was the oldest girls' high school in Pune.

*Figure 75. Swarachinhas (maatras) introduced alongside the moolaksharas in the Balbharti textbook.*

Each lesson started with one or two sentences, in the fashion of the American basal readers of the time. The words and the *aksharas* used were given at the bottom of the page. In the first three lessons only the *moolaksharas* were used. But in the fourth lesson the abbreviated vowel sign (*svarachinha*) for long /a/( ा) was introduced, and in the subsequent lessons the remaining abbreviated vowel signs were gradually introduced. In other words, the authors did not wait to introduce the *svarachinhas* until all the *moolaksharas* had been covered (see Figure 75). This meant that the children's reading vocabulary increased very rapidly.

By the sixth lesson a child should have been able to read the passage given in Figure 76. The book also included poems by some of the best known poets who had written poems or songs for children.



| बाळ | The Baby |
|---|---|
| बाळ बघा. बाळाचा पाळणा बघा. | Look at the baby. Look at the cradle. |
| आई, दाखव ना मला बाळ. | Mama, let me see the baby. |
| हात मऊ, पाय मऊ, | Soft hands, soft feet, |
| नाक लहान, कान लहान. | Tiny nose, tiny ears, |
| इवलासा बाळ. छान छान बाळ. | Tiny, tiny baby, beautiful baby. |
| चल, चल बाळा, पायात वाळा. | Come, come baby, with ankle bracelets. |

*Figure 76. Page from Balbharti representing the text mentioned.*

## Using *Balbharati*

A revised edition of *Balbharati* was published in 1978. Some stories and poems from the first edition were retained. As in the original book, short sentences were given in the first lessons. But no abbreviated vowel signs were used until all the *moolaksharas* had been introduced (see Figure 77). As a result, in the first sixteen lessons the sentences given were extremely artificial. Here is an example:

| | |
|---|---|
| आई घर बघ. | Mother, look at the house. |
| शरद घर बघ. | Sharad, look at the house. |
| अभय नळ बघ. | Abhay, look at the tap. |
| जगन अंगण बघ. | Jagan, look at the yard. |
| शरद चटई आण. | Sharad, bring the mat. |
| एक फणस आण. | Bring a jackfruit. |
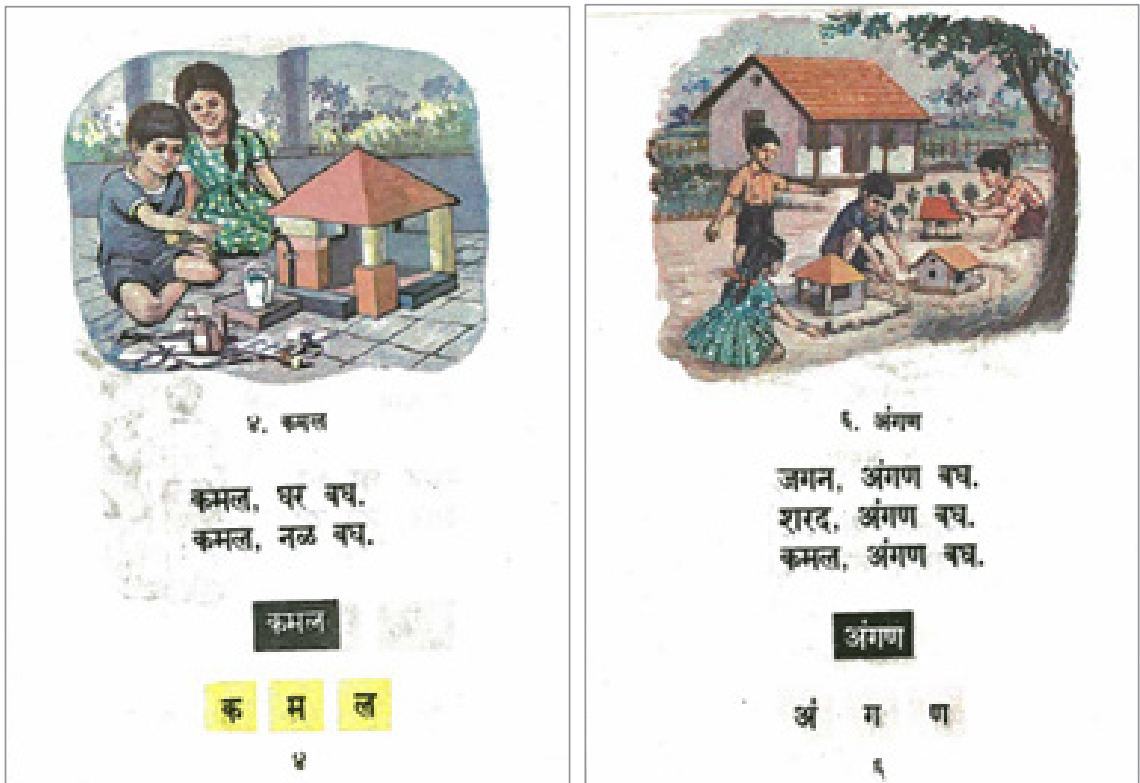


*Figure 77*. Example of text from the *Balbharti* book (1978 ed.).

In 1978 when I started trying to teach children to read and write, this was the *Balbharati* edition that was being used both in school and in our support class. So, I was able to directly observe the problems that children had with it. I soon recognized that children could neither read words nor identify *aksharas*. They had simply memorized the sentences.

At times what I observed was quite bizarre. For instance, when I showed a child the word आई (mother) he would respond, "आई घर बघ" ("Mother, look at the house.") Once when I showed a child the word फणा (cobra's hood), he responded, "फणस उचल" ("Pick up the jackfruit.")



Of course, this was probably not the intention of the textbook writers. They must have taken it for granted that the teachers would teach word and *akshara* recognition, but this wasn't mentioned explicitly in the textbook, and the tragedy of our education system is that too many teachers are unwilling or afraid to go beyond the textbook.

# What is the Problem?

The exchanges between the children and myself which I have recounted above are in the context of a particular edition of *Balbharati*. But similar exchanges between teacher and student can be heard in countless classrooms all over the country. What is happening is that in the name of word and *akshara* recognition, the sound of the *akshara* is left out. The LiRIL report describes the same phenomenon. In discussing how the Indian script is typically taught taught in Indian classrooms, the authors of the report say:

> The script is taught with more stress on learning the symbols (*aksharas*) than their sounds. Children spend a lot of time tracing and copywriting *aksharas* and words, but not enough time trying to match the symbols and the sounds together. Rote and recognition are the only two strategies used to help children learn (Menon, et al., 2017, p. 69).

The *Balbharati* book I just described employed the whole word – or sight word[40] – method. This method had been in vogue in the United States for some decades, but had gradualIy fallen into disfavor after a strong critique by Rudolph Flesch in a book titled *Why Johnny Can't Read: And What You Can Do About It* published in 1955.

I still remember vividly how I came to understand how unsuitable this approach is for Marathi. A man working for my friend Jai Nimbkar, told her that his daughter was attending school but was not learning how to read. He asked Jai for help. She told him that I was working on teaching children to read, and he could send the child to me. I worked with her for several days, using the same sight word approach, but with no noticeable success.

Finally, the father asked Jai to take over. Under her , the girl made substantial progress in a short time. When I asked Jai what she had done, she told me that she had taught the child by using a modified version of the traditional approach – basically taking advantage of the regularity of the fit between Marathi and the Devanagari script. Hearing this I realized what folly we were committing by using an outdated American approach, and neglecting the wonderful gift that had been passed down by Indian grammarians.

Rudolf Flesch's *Why Johnny can't read: And What You Can Do About It,* is considered to be a classic book on the phonics approach to teaching reading. After coming in contact with a 12 year old boy Johnny, who hitherto having been taught by the sight word approach/whole word reading approach, struggled with reading. Flesch then took up the responsibility of teaching Johnny, and successfully did so in a period of six months, using the phonics approach. In the book, Flesch says, "Johnny couldn't read until half a year ago for the simple reason that nobody ever showed him how." (Flesch, 1955, p. 2).

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[40] Sight word approach refers to the strategy of presenting children repeatedly with a small set of pre-determined and carefully selected words until they are learnt as a whole. The words are not broken down initially into their component phonetic parts. For example, words such as is, am, the, and, man, book, that, this, so on, are presented as whole sight words, without teaching children to read them phonetically. A person's name could be another kind of sight word that could be taught as a whole.

I realize that this is a very knowledgeable audience, and you must all be aware of the one-to-one correspondence between sound and *akshara* in Indic scripts. But perhaps we take this transparency for granted, and miss the deeper implications. So, I invite you to reflect with me for a few minutes on the nature of the writing system underlying Indic scripts.

## How our Scripts Work

In the last couple of decades there has been significant work on the nature of writing systems – some focusing on historical issues, some on typologies of writing systems, some on the insights gained in studies of brain activity. Not all of this work is easily accessible to the educator who simply wants to focus on why so many of our children are not learning to read. In this regard I appreciate the point of view put forth by Charles A. Perfetti of the University of Pittsburgh:

What a child learns is how his or her writing system works – both in its basic principles and the details of its orthographic implementation (Perfetti, 2003, p. 16).

The Indic scripts, which include the scripts of both North and South India, are generally considered to have a common ancestor in the Brahmi script. Today, they are generally described by the term *alphasyllabic*. An alphasyllabic script is one in which abbreviated vowel signs – variously called *maatras, svarachinhas, gunithas*— are attached to preceding consonants.

### Alphasyllabic Features of Indic Scripts

Richard Salomon discusses the following features of Indic alphasyllabic scripts:

1. The *aksharas* have an inherent vowel sound. For example, the inherent /uh/ sound in क, ख, म.

2. Diacritics are added to the consonant sign. For example the /ee/ *ki maatra* (ी) in की.

3. There are two types of vowel signs: full (आ, ई, उ) and diacritics (ा, ी, ु).

4. There are two types of vowelless consonants: Either conjunct consonants within a word (such as क्त, ), or absence of vowel sound in the word final position (for example sound of /g/ in जग is without the /uh/ sound.

Salomon (2000, p. 101)

Despite the differences between them, alphasyllabic scripts and alphabetic scripts share a common goal of representing in graphic form the phonetic structure of the language. In an alphabetic system, using a limited number of letters we can write any word in the language. How is this possible? Each language has a relatively small number of sound units. All the words in the language are formed by various permutations and combinations of these basic units, which we call phonemes. If we map one visual symbol (letter) on each phoneme, we can write any word in the language.

This is a stroke of human genius! Only the fact of daily familiarity makes us oblivious to the beauty and elegance of the alphabetic system. Of course, English, which theoretically uses an alphabet, has a great deal of irregularity, for historical and other reasons. A language like Spanish is perhaps a better example of a good fit between the language and the script.

If the development of the alphabetic system was a stroke of genius, the work of the Sanskrit grammarians was truly awesome. As Salomon observes, these grammarians "felt the need to develop a system which represented the sacred language as exactly as possible." They were, "intensely aware of and interested in phonetics and grammar" (Salomon, 2000, p. 100). Their phonetic description of the language has traditionally formed the foundation of literacy learning in India.

The *varnamala /moolakshara* (list of basic *aksharas*/symbols) is a presentation of the basic *aksharas* in tabular form. The top row contains all the vowels, the next five rows the consonants, then finally, a miscellaneous group of sibilants, sonorants, and other sounds. In the consonant section, the first row has the consonants in which the back of the tongue touches the back of the throat. The next row has palatal sounds, where the tip of the tongue touches the palate. The following row has the retroflex sounds, where the tongue is turned back and the jaw is widened. The fourth row has dental sounds, and the fifth, labial.

Now looking at the consonant table from left to right, each row has the following sequence: voiceless stop, voiceless aspirate, voiced stop, voiced aspirate, nasal. Thus in Marathi we have the following.[41]

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[41] In Marathi the nasals for the first two rows are rarely used, and are not available in the Unicode I have at my disposal.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| क | ख | ग | घ | | kʌ | khʌ | gʌ | ghʌ | |
| च | छ | ज | झ | | cʌ | chʌ | jʌ | jhʌ | |
| ट | ठ | ड | ढ | ण | tʌ | thʌ | dʌ | dhʌ | nʌ |
| त | थ | द | ध | न | tʌ | thʌ | dʌ | dhʌ | nʌ |
| प | फ | ब | भ | म | pʌ | phʌ | bʌ | bhʌ | mʌ |

In addition to creating the phonetic-based *varnamala*, the Indian grammarians created a set of abbreviated vowel symbols (*maatras, gunithas*) and other diacritics which can be attached to each consonant. Along with the *varnamala*, the table of these forms was traditionally memorized and chanted by school children learning to read. The Devanagari version of the table is called the *barahkhadi*. You must all be familiar with it.

| क | का | कि | की | कुं | कू | के | कै | को | कौ | कं | कः |
|---|---|---|---|---|---|---|---|---|---|---|---|

Notice that there is no vowel sign after the क. This is because the neutral center vowel /ʌ/ (/uh/ sound)[42] is considered the default vowel. The concept of the default vowel is considered one of the defining characteristics of the Devanagari script. It is a common sense notion, contributing simplicity and economy to the overall system. However, it requires a strategy for dealing with situations where the default vowel should not be pronounced. The simplest case is a word-final consonant. In this case, for Hindi and Marathi it is taken for granted that the default vowel is not pronounced. राम is /raam/. (In Telugu, however, the default vowel is present even for word-final consonants. If one wants to indicate that the vowel is not to be pronounced, one uses a special sign which is referred to as a *halant* in Hindi.

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[42]  We have represented the /uh/ sound through the /ə/ symbol in the rest of the book.

प्रमाण    स्थान    स्टेशन    शक्ति    सत्ता    त्रास    मक्का
pramaan   sthaan   steshan   shakti   satta   traas   makka

More importantly, though, there is the question of how to deal with doubling of consonants and consonant clusters (*samyukt vyanjana*).[43] Grammarians have created special forms for these clusters so that they function as whole units without the intervening default vowels. There is nothing very arcane about this, but the detail may be distracting. So I will simply give a few Marathi examples and move on with the main argument of this paper.

## What is the Problem?

What an amazing legacy the Indian grammarians have passed on to us: a detailed phonological analysis of our languages, and a system of mapping the basic sound units onto symbols – *aksharas* – very high degree of regularity! I used to think that given such a regular system, children should have very little difficulty in learning how to read. Now, I think I understand something I didn't earlier – that is, when we say that a child is unable to read in an Indian language, we have not diagnosed his problem. Does he have difficulty with the sound – *akshara* correspondences? Or is he unable to relate his script knowledge to the meaning of words and sentences?

Looking at the question from the standpoint of the teacher's pedagogy, we must ask if the teacher has given sufficient stress to the fact that our scripts are based on sound-*akshara* correspondences.

But, it must be kept in mind that ultimately our scripts use a phonetic system to decode or encode meaning. Reading and writing are finally about meaning. The learner and the teacher are faced with a three-part system that the child needs to master: *aksharas* (visual symbols), sound and meaning. It is the teacher's responsibility to help the child hold together this three-part package. For some children, this does not pose any problem. But for some children it does.

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[43]  There is a delightful story by Rabindranath Tagore, called "The Postmaster." The postmaster teaches a little girl how to read and write, using the traditional method. However, he is transferred before he gets to conjunct consonants.

What makes it difficult? Margaret Donaldson suggests that until they come to school children have been directing their thinking towards the outside world. Now, they are asked to turn their gaze inward, and think about thinking and speaking, "What is a word, what is the first sound of such and such a word, what does the word mean?"

Margaret Donaldson maintains that this ability to think about the content of our minds – metacognition, if you will — is a basic requirement of school learning (Donaldson, 1987). (I do not mean to suggest that illiterate people cannot do this, but that is beside the point for our present discussion.)

*. . . The normal child comes to school with well-established skills as a thinker. But his thinking is directed outwards on to the real, meaningful, shifting world. What is going to be required for success in our educational system is that he should turn language and thought in upon themselves. He must become not just able to talk but to choose what he will say, not just to interpret but to weigh possible interpretations. His conceptual system must expand in the increasing ability to represent itself. He must become capable of manipulating symbols.*

*Now the principal symbolic system to which the pre-school child has access is oral language. So the first step is the step of conceptualizing language – becoming aware of it as a separate structure, freeing it from its embeddedness in events.*

Donaldson (1987, pp. 88-89)

## Summing up

So where have we come so far? I have argued that our Indic scripts are alphasyllabic, and learning to read or write a word involves holding together a three-part package which includes the sound units comprising the word, the meaning of the word, and the visual symbols which map onto the sound units.

I have further argued (and the LiRIL data shows) that in classrooms all over the country there is a tendency to focus on the visual symbol and perhaps also on the meaning. The sound units tend to get short shrift.

# Holding it Together

I said a while ago that in reading a word, a child has to hold together a three-part package which includes sounds, meanings and visual symbols. And, of course, people generally do not just read individual words. They read sentences, stories, articles – not to mention messages, Facebook postings, and any number of other things.

A neo-literate child does not have to deal with a Facebook posting, but he does need to identify simple words, and to process and comprehend at least short sentences of two or three words. How can he hold this three-part package together, and how can he move forward from the beginning to the end of the sentence, keeping this ever-expanding package going?

Interestingly, two women from New Zealand have given us insights into these questions. One was Sylvia Ashton-Warner, a teacher of Maori tribal children. Ashton-Warner argued that the force that holds a word together in the head is an emotional charge – positive or negative emotion that helps the child grasp and hang on to a word in an instant. She elicited from each child her own key vocabulary, which had strongly charged words like "mother", "love", "hate". (Ashton-Warner, 1986)

The other New Zealander was Marie Clay, a developmental psychologist, who saw learning to be literate as the development of inner control. Clay recognized that in learning to read (or write), a child is establishing neural networks in the brain. The more the child reads and writes, the stronger are the networks built up in the brain (Clay, 1991). (It goes without saying that the process is vastly more complex than the grossly oversimplified picture I am giving you here.)

...the key words [carry] their own illustrations in the mind, vivid and powerful pictures which none of us could possibly draw for [the children]-since in the first place we can't see them and in the second because they are so alive with an organic life that the external pictorial representation of them is beyond the frontier of possibility. We can do no more than supply the captions (Ashton-Warner, 1986, p. 39).

A question in search of an answer is how does the reading of one text lead to being able to read a more difficult text? How does a good reader learn to read by reading? A possible answer to that question is that the behaviours, the inner control, the visual perception and the in-the-head processing learned in the acquisition period become part of an interactive system of strategies which work in some way that empowers the system (Clay, 1991, p. 317).

## The Teacher

Even in this brief overview I would be remiss if I did not at least mention the teacher. Especially for children who come from non-literate homes, the support of a sensitive, patient teacher is absolutely necessary.

I would like to close with a short clip from *Pragat Vachan Paddhati* ("The PSS Approach to Reading") In this clip the PSS teacher Datta Ahiwale is teaching a group of second graders in a Zilla Parishad school. These were the children in the class who were not reading up to grade level. Datta Sir had no acquaintance with these students before we did the film.

The clip I am showing is in the section on reading a sentence. Datta sir has written the sentence हा माझा मामा ("This is my uncle") on the board, and has asked a girl to read it. Note how the girl struggles to hold onto the syllables and words in the sentence, and how Datta sir stays with her. I hope that you find it as moving as I do.

Please refer to 11.45 to 12.52 mins of https://www.youtube.com/watch?time_continue=808&v=Ytj0GWxv-fk

## A Story and a Poem

I may have time to share one story and poem with you. I think it has relevance to the theme of our conference. The statewide conference on child literacy which was held in Pune was an undertaking of the Early Literacy Project of the *Pragat Shikshan Sanstha* in Phaltan. The Director of the project is Prakash Anbhule who joined our school in the very first batch (see Figure 78).



*Figure 78.* Prakash as a young boy in *Kamala Nimbkar Balbhavan*, Phaltan.
**Image Courtesy:** Maxine Berntsen.

Prakash came from a poor family living in on the outskirts of the town. His parents enrolled him in the closest municipal school, which was located in the *vasti* (slum/settlement) for a nomadic tribe. The teacher didn't teach, but he would come in every now and then to shout at the children and beat them.

Prakash and one of his friends finally had enough. Instead of going to school, they would sit in the nearby temple, making up songs and poems. They didn't know anything about reading and writing, but they were exposed to the songs of traditional folk artists like the *gondhali*[44] who lived next door. Besides, Prakash would often wake up to the voice of his father singing the *dohas* (couplets) of Kabir.

Finally Prakash's family got worried that he hadn't learned to read, and wondered if there was something wrong with him. They took him to Dr. Manjiri Nimbkar, who was running a school for the mentally challenged. She said that the boy was perfectly okay, and advised them to enroll him in the *Kamala Nimbkar Balbhavan* which had just started a kindergarten class. As soon as Prakash arrived in the school he knew he was home, and he has been there ever since – except for the years when he was in Intermediate and college.

When Prakash was in the fourth grade, the teacher encouraged the students to write poetry, and a number of them did so. One day she taught an *abhanga* (a form of devotional poetry) by Chokhamela, a Dalit poet from the fourteenth century. The poem reads:

| | |
|---|---|
| उस डोंगा परी रस नाही डोंगा, | Sugarcane is crooked, but the juice isn't crooked, |
| का भुललासी वरल्या सोंगा? | Why be deceived by outward appearance? |
| नदी डोंगा परी जल नाही डोंगा, | The river is crooked, but the water's not crooked, |
| का भुललासी वरल्या सोंगा? | Why be deceived by outward appearance? |
| चोखा डोंगा परी भाव नाही डोंगा, | Chokha is crooked, but his feelings aren't crooked, |
| का भुललासी वरल्या सोंगा? | Why be deceived by outward appearance? |

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[44] *Gondhali* is a community in Maharashtrian which sings devotional songs of deities.

In response Prakash, a spindly little boy from an impoverished family, going to school in a building that was once a seed warehouse, wrote the following *abhanga*.

| | |
|---|---|
| आई डोंगा परी प्रेम नाही डोंगा, | Mother is crooked, but her love isn't crooked, |
| का भुललासी वरल्या सोंगा? | Why be deceived by outward appearance? |
| शाळा डोंगा परी शिक्षण नाही डोंगा, | The school is crooked, but the schooling's not crooked, |
| का भुललासी वरल्या सोंगा? | Why be deceived by outward appearance? |
| प्रकाश डोंगा परी गुण नाही डोंगा, | Prakash is crooked, but his talent's not crooked, |
| का भुललासी वरल्या सोंगा? | Why be deceived by outward appearance? |

This little boy already had a sense of self, and he could tap into the literary tradition of Maharashtra to declare himself. May we commit ourselves to giving each child in our schools the tools to find what they seek. In the words of Sant Dnyaneshwar: जो जे वान्चील तो ते लाभो, प्राणिजात: "Let each one find what he seeks."

## References

Berntsen, M. (1984). Teaching beginning reading - Why do we fail? In *Booklet on the 7th national conference on school textbooks.* Pune: Maharashtra State Bureau of Textbooks.

Clay, M. M. (1991). *Becoming literate*: *The construction of inner control*. Portsmouth, NH: Heinemann.

Donaldson, M. (1987). Why children find school learning difficult? In *Children's minds*. London: Fontana.

Flesch, R.(1955). *Why Johnny Can't Read: And What You Can Do About It*. New York: Harper & Row.

Perfetti, C. (2003). The universal grammar of reading. *Scientific Studies of Reading, 7(1)*, 3-4.

# ANNOTATED
# READING RESOURCES

# Annotated Resources on Teaching and Learning the Script

Allington, R. (1983). Fluency: The neglected reading goal. *The Reading Teacher, 36(6)*, 556-561.

Oral fluency, the ability to effortlessly, accurately, and expressively read texts, is essential to reading with comprehension. Poor reading fluency is often mistakenly attributed solely to poor decoding skills, leading to remedial instructions that focus solely on building letters-, sound- or word-recognition, in isolation of practice with reading connected texts. To help educators better understand reading fluency, this paper presents seven hypotheses about the factors and learning conditions that impact fluency. The paper also provides a fluency scale that can help teachers formatively assess their students' reading fluency and design appropriate remedial instruction.

Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. R. (2016). *Words their way: Word study for phonics, vocabulary, and spelling instruction*. Upper Saddle River, NJ: Pearson.
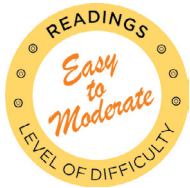
Becoming fully literate is dependent on fast, accurate recognition of words in texts, and fast, accurate production of words in writing so that readers and writers can focus on meaning making. This book helps educators understand the importance and purpose of word study, and suggests practical ways to study words with students. Based on research on developmental spelling and word knowledge, this book takes readers through five stages and instructional levels that complement the use of existing phonics, spelling and vocabulary curricula. Examples and writing samples in the book make the concepts easy to relate to.

Bear, D. R., & Templeton, S. (1998). Explorations in developmental spelling: Foundations for learning and teaching phonics, spelling, and vocabulary. *The Reading Teacher, 52(3)*, 222–242.

What is our understanding of spelling development and how does this fit within the broader model of literacy development? In this paper, Bear and Templeton suggest that literacy instruction should balance authentic reading and writing with purposeful word study. How is this balance achieved? It is accomplished when students explore words in developmentally appropriate and embedded ways within the larger context of having satisfying engagements with reading and writing. The paper provides readers with outlines of the many aspects related to spelling development and word study.

Clay, M. M. (1991). Attention to concepts about print. In *Becoming literate: The construction of inner control* (pp. 141-154). Portsmouth, NH Heinemann.
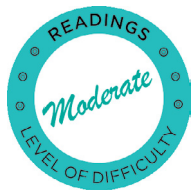
Concepts about Print (CAP) refers to children's developing awareness about how print works – that print conveys meaning, that it is used for different purposes, and that it has different features, forms and conventions. In this chapter of her book on how children emerge into literacy, Clay describes why paying attention to CAP is vital for success in developing the skill of reading. She emphasises that it can't be assumed that children are already familiar with CAP, and hence, teaching these concepts requires careful and consistent planning and modelling by teachers.

Cunningham, P. M. & Cunningham, J. W. (2002). What we know about how to teach phonics. In A. E. Farstrup & S. J. Samuels (Eds.), *What Research Has to Say About Reading Instruction* (3rd ed., pp. 87–109). Newark, DE: International Reading Association. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.552.1728&rep=rep1&type=pdf

In this chapter, Cunningham and Cunningham outline and discuss principles of teaching phonics. The chapter is divided into three main sections. In the first section, the authors identify three general principles of learning that also apply to learning phonics. First, that children need cognitive clarity about what they are learning; second, that they need to be engaged with what they are learning; and third, that they need instruction that is multi-faceted and multidimensional, that is, activities that are designed in ways that permit children at different levels and with different learning styles to engage in it. In the second section, the authors review what is known about teaching phonics: that children need phonemic awareness; they need to learn sequential decoding; they need to learn to apply phonics to reading connected texts; and they need to be taught to decode using analogies (patterns) and morphemes. In the final section, the authors consolidate the understandings developed in the first two sections by outlining a set of principles for sound phonics instruction: that children should spend most of their language arts time reading and writing; and that phonics should be taught through a variety of multi-level activities that emphasize transfer. In the last of these sections, the authors illustrate what they mean by providing a rich set of examples of word-level activities that are both multi-level, and that facilitate transfer.

Ehri, L. C. (1987). Learning to read and spell words. *Journal of Reading Behavior, 19(1)*, 5–31. DOI: 10.1080/10862968709547585.
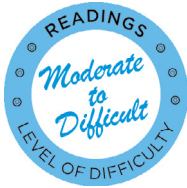
This paper provides a review of a line of empirical research conducted by the author and her colleagues on how children learn to process words during text reading. The author begins by describing the central role of word identification in learning to read. Next, a review is provided of the line of research that led to the identification of distinct phases of learning to process words – from pre-alphabetic, to partial-, full- and consolidated alphabetic phases. Once children begin to attend to letter-sound cues, initially, words are read by accessing remembered associations between a few written letters and sounds in pronunciations, and later when decoding skills get better, orthographic chunks are analysed and stored in memory, making for more fluent reading. The author also shows how learning to read and spell are major events influencing the course of spoken language development – a relationship that is often left unanalysed.

Ehri, L., & Nunes, S. R. (2002). The role of phonemic awareness in learning to read. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (pp. 110–140). Newark, DE: International Reading Association.

This chapter deals with the concept of phonemic awareness (pa) in great detail. What is the difference between pa, phonics and phonological awareness (PA)? Why is it important to understand pa and what does research have to say about it? The chapter illustrates studies conducted to show that pa, the ability to understand and manipulate the smallest units of sound, is a direct contributor to helping children to read.

Ellery, V. (2014). Phonemic awareness. In *Creating strategic readers: Techniques for supporting rigorous literacy instruction* (pp. 23-46). Huntington Beach, CA: Shell Education.

This chapter on phonemic awareness illustrates the difference between phonemic awareness, phonics and phonological awareness and helps the reader understand the key differences between these terms. It also explores the relationship between these terms and presents phonological awareness (PA) as the umbrella term that encapsulates phonemic awareness (pa). The chapter suggests various strategies for teaching PA, such as rhyming, isolating and identifying phonemes, blending, segmenting and so on. A list of activities is also provided for assessing children's developing pa.

Kamhi, A. G., & Catts, H. W. (1999). Language and reading: Convergences and divergences. In *Language and reading disabilities* (pp. 1–24). Needham Heights, MA: Allyn & Bacon.
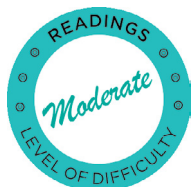
Though reading shares many processes with talking and listening, it is not a simple derivative of the spoken language. Knowledge of the similarities and differences between the two is critical to understanding how children learn to read and why some children face difficulties in learning to read. The most fundamental differences between spoken and written language are the perceptual and biological/social bases of spoken language versus the explicit phonological awareness required to become a proficient reader. Since reading is not an ability that comes naturally like speaking does, factors like attention, instruction, and motivation play a critical role in learning to read. This chapter, while defining language and reading, makes an in-depth comparison of the processes and knowledge involved in understanding spoken and written language.

Metsala, J. L., & Ehri, L. C. (1998). *Word recognition in beginning literacy*. Mahwah, NJ: Lawrence Erlbaum Associates.
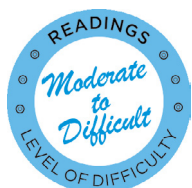
This book is a product of a conference held with the purpose of bringing together beginning reading experts in the field of education, psychology of reading and reading disabilities to discuss their findings and theories about how children learn to read words.

The book has three parts. The first part focuses on the importance of the cognitive processes of developing readers and explanations of their growth and development. The second section addresses the development of reading-related phonological skills in disabled readers programmes. The last section presents studies of word recognition in the early home environment and examines beginning reading programmes in the classroom. Principles that make early literacy instruction motivating for students are addressed as well, along with an examination of the impact of early reading success on later reading habits. The book brings together relevant contributions from some well-known scholars in beginning reading instruction.

Nag, S. (2007). Early reading in Kannada: The pace of acquisition of orthographic knowledge and phonemic awareness. *Journal of Research in Reading, 30(1)*, 7-22. http://dx.doi.org/10.1111/j.1467-9817.2006.00329.x
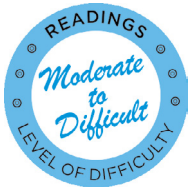
The article reports on a longitudinal study that investigated issues related to the acquisition of the Kannada script. It was hypothesised that *akshara* knowledge acquisition would take longer in Kannada, when compared with the developmental pace reported in English early reading, and that phonemic awareness would be slower to emerge. The study found the hypothesis to be true across grades in low-achieving, as well as in more effective schools. The paper discusses the nature of the cognitive demands in *akshara* reading due to the visuo-spatial complexity and extensive nature of Indian scripts. The study makes a significant contribution to our understanding about how learning Indian scripts is very different form learning the English language script which is alphabetic.

Nag, S., Caravolas, M., Snowling, M. J. (2011). Beyond alphabetic processes: Literacy and its acquisition in the alphasyllabic languages. *Reading and Writing, 24(6)*, 615-622.

An alphasyllabary is a writing system that encodes sounds both at the level of the syllable and the phoneme. Most Indic scripts are alphasyllabic. This paper brings together a collection of work dedicated to understanding languages that are alphasyllabic in nature. It informs us about the various efforts that have gone into researching and understanding this writing system and introduces readers to the question of what it means to teach an alphasyllabic script.

Nag, S. & Snowling, M. J. (2010). Cognitive profiles of poor readers of Kannada. *Reading and Writing: An Interdisciplinary Journal, 24(6)*, 657-676. DOI:10.1007/s11145-010-9258-7

It has been consistently observed that a large number of children struggle with literacy acquisition in the *akshara* languages. A majority of the research on reading development and dyslexia has been undertaken in alphabetic languages, where the letters of printed words map onto the speech sounds at the level of phonemes. We do not have enough research about reading acquisition in alphasyllabic languages, where the basic symbol unit is called the *akshara*.

This paper summarises a study that aimed to specify the cognitive skills that underpin proficient orthographic development in young readers of Kannada and to characterise the difficulties associated with poor reading (dyslexia). It also gives pointers for what might be a more effective means to *akshara* literacy.

Perfetti, C.A. (2003). The universal grammar of reading. *Scientific Studies of Reading 7(1),* 3-24. DOI: 10.1207/S1532799XSSR0701_02. Retrieved from http://www.pitt.edu/~perfetti/PDF/Universal%20grammar%20of%20reading.pdf
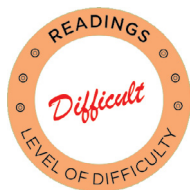
This article, based on a presidential address to the Society for the Scientific Study of Reading (June, 2001), aims to answer the question of how we learn to read. Perfetti discusses the concept of a universal language constraint, which is that all writing systems (even logographies) represent/encode spoken languages. Thus, to be able to read, we need access to two knowledge systems— first, how the writing systems works; and second, a knowledge of the oral language which has to be encoded. In the second part of the address, Perfetti discusses the implications of this universal grammar for learning to read.

Pressley, M. (2006). *Skilled reading. In Reading instruction that works: The case for balanced teaching* (pp. 48-64). New York, NY: Guilford Press.
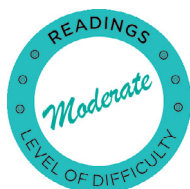
This chapter presents a summary of research that points to the fact that skilled reading is a coordination of higher order processes (such as comprehension) and lower order processes (such as decoding). Therefore, expert readers are proficient in word-level processes that are not necessarily dependent on meaning cues, as had been argued by whole-language theorists. At the same time, they are also proficient at getting the gist of the texts they read, using both automatic and more conscious comprehension strategies. Those who wish to teach reading well, need to understand the processes mastered by skilled readers, so that they can support their students at becoming skilled at reading.

Reddy, P. (2012). *Cognitive and linguistic underpinnings of literacy development in alphasyllabaries.* Retrieved from http://linguaakshara.org/yahoo_site_admin/assets/docs/Alphasyllabaries_-_2_Pooja_Reddy.8094756.pdf
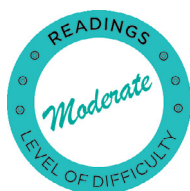
There are close to a dozen writing systems in the world, such as the alphabetic, syllabary, logographic systems. Many Indian scipts are alphasyllabic in nature. The alphasyllabic scripts have characteristics of both the alphabetic and syllabic scripts—they encode phonological information at syllabic and sub-syllabic levels. This reading discusses the cognitive and linguistic demands of processing an alphasyllabary and its implications for reading acquisition.

Salomon, R. G. (2000). Typological observations on the Indic script group and its relationship to other alphasyllabaries. *Studies in the Linguistic Sciences, 30(1)*, 87-103.
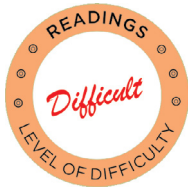
This paper discusses the nature of alphasyllabic scripts. It starts with discussing the difficulties involved in the categorisation of scripts, since scripts often take on the characteristics of different writing systems instead of adhering strictly to one. The discussion then moves on to the similarities and distinctions of the alphasyllabary in relation to the alphabetic system and the traditional syllabary.

The historical, linguistic and other systemic considerations for the evolution of the Indic scripts are also discussed in detail, including historical and functional reasons behind features such as the inherent vowel sound and symbols for conjunct-consonants. The last part of the nature with paper discusses the nature of three scripts consisting of the features of the alphasyllabary—Ethiopic, Meroitic and Persian Cuneiform scripts—and compares them to features of the Indic scripts.

Stahl, S. A. (1986). Three principles of effective vocabulary instruction. *Journal of Reading, 29(7)*, 662-668.

This article described three principles that characterise effective vocabulary instruction. First, that teachers need to provide students with context along with definitions; second, that they should encourage "deep processing" (not shallow learning) of new words; and third, that they need to give students multiple exposures to new words. In the second and third sections, Stahl describes ways of deciding what needs to be taught, and also methods of teaching vocabulary.

Stahl, S. A. (1992). Saying the "p" word: Nine guidelines for exemplary phonics instruction. *Reading Teacher, 45*, 618–625.

The aim of this article is to explain what is meant by "phonics" and to establish a rationale for teaching phonics explicitly. Stahl proposes nine principles for teaching phonics, such as, good phonics instruction develops a child's concepts about how print works; it helps build a foundation of phonemic awareness; approach should be clear and direct and it should be well-integrated into a total with comprehensive reading programme.

Templeton, S., & Morris, D. (2001). Reconceptualizing spelling development and instruction. *Reading Online, 5(3)*.
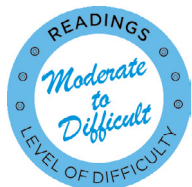
The paper suggests that the manner in which spelling has been conceptualised has evolved over the last few decades. Spelling was earlier considered a tool for writing, but now it is recognised as something that offers a partial understanding of what an individual knows about processing words. This paper explores the evolution of this reconceptualisation through the discussion of spellings as a system, as a subject of instruction, and as a psychological and linguistic process in writing and reading. The authors provide a brief overview of the historical and contemporary contexts of spelling research and instruction. They also discuss the relationship between word knowledge in spelling and word knowledge in reading, and the implications of these for instruction.

Vaid, J., & Gupta, A. (2002). Exploring word recognition in a semi-alphabetic script: The case of Devanagari. *Brain and Language, 81*, 679-690. DOI:10.1006/brln.2001.2556. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.551.1040&rep=rep1&type=pdf
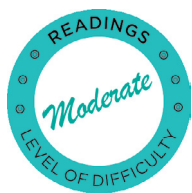
Generalisations about reading processes derived from the studies of English alone has time and again proven to be limiting if we are to understand how children learn to read in Indian scripts. This paper describes a study of an under-researched script—Devanagari. The study was designed to examine the processing implications of one property of this script– its consonant-vowel positioning. The paper provides details of experiments conducted, followed by a discussion of implications for children's learning of the script.

Yopp, H. K., & Yopp, R. H. (2000). Supporting phonemic awareness development in the classroom. *The Reading Teacher, 54(2)*, 130-143. Retrieved from https://www.literacyhow.org/wp-content/uploads/2013/08/SupportingPhonemicAwarenessDevelopmentintheClassroom.pdf
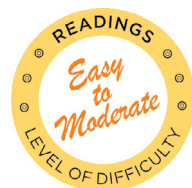
This paper addresses the "how" of teaching phonemic awareness by suggesting playful activities that focus on the structure of language to support literacy development. The fourteen activities focus on rhyme, syllable manipulation, onset and rime manipulation, and provide guidelines for planning phonemic awareness instruction for children in preschool, kindergarten, and Grade 1. Teachers and teacher educators would find this a handy resource for planning phonemic awareness instruction in a knowledgeable way.

# Practitioner–Friendly Resources

Pydah, A. (2019). *Learning the script*. Hyderabad: Early Literacy Initiative, Tata Institute of Social Sciences. Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/08/ELI_Handout_6_Learning-the-Script.pdf

Have you ever wondered why it is so hard for children to learn to read Indian scripts despite spending three or four years in formal classrooms? Even though many hours are spent teaching the *varnamala*—the individual *aksharas*, the *maatras*— and providing consistent practice of words beginning with each of those *aksharas*, children still seem to struggle with learning to read. What do we know about the nature of most Indian scripts? How do we extend this understanding to help children learn the script in more meaningful, engaging ways? In this In this brief, Akhila Pydah tries to answer these questions by suggesting key principles for teaching children the script. She also provides examples of classroom activities that can be adapted for use in Indian classrooms.

Pydah, A. (2019). *Readers' Theatre in the classroom*. Hyderabad: Early Literacy Initiative, Tata Institute of Social Sciences. Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/08/ELI-Practitioners-Brief-13_Readers-Theatre-in-Classroom.pdf

In this practitioner brief, Akhila Pydah explains what a Readers' Theatre is and highlights its many benefits for language and literacy learning. Not only does readers' theatre give a powerful reason for practising reading, but it also provides a meaningful avenue for children to respond to literature through multiple modalities. Pydah shares useful suggestions for using readers' theatre in your classrooms.

Das, H. V., & Pydah, A. (2019). *Supporting phonological awareness in pre-primary and primary classrooms*. Hyderabad: Early Literacy Initiative, Tata Institute of Social Sciences. Retrieved from http://eli.tiss.edu/wp-content/uploads/2017/08/ELI_Handout_5_Phonological-Awareness.pdf

This ELI practitioner brief aims to help the reader understand what phonological awareness is, and why it is essential to support its development in early language classrooms. Also provided in the brief are a number of activities that could be used in the classroom. These activities can be adapted to teach phonological awareness in both Indian languages as well as English.

Subramaniam, S., Menon, S., and Sajitha, S. (2017). *The teachers' guide to literacy research. Part 1. Teaching and learning the script*. Bangalore: Azim Premji University and New Delhi: Tata Trusts. Retrieved from https://www.tatatrusts.org/upload/pdf/liril-teacher-guide-teaching-and-learning-part2.pdf

In this teachers' guide, the authors summarize learnings from the LiRIL project related to the teaching and learning of the script in classrooms in Maharashtra and Karnataka. Teachers can prepare to teach decoding effectively by understanding the phases that children go through as they learn to read. The phases of learning to read words in Marathi and Kannada are described and contrasted with phases described for learning to read the English script. Specific recommendations are provided for supporting readers in each of the phases, which can be used easily in many Indian classrooms.

# GLOSSARY

| Term | Definition |
|---|---|
| *Akshara* | *Akshara* refers to symbols in Indic scripts comprising of *moolaksharas* (क, ख, ग), as well as units of *moolaksharas* combined with *maatras* (abbreviated vowel sign) (e.g., का, कि, की). |
| *Barahkhadi* | *Barahkhadi* refers to all possible combinations of *moolaksharas* with the *maatras* (secondary vowel signs), for instance, क, का, कि, की… |
| *Deergh (दीर्घ) maatra* | Diacritic symbol for long vocalic sounds ( ी, ू ). |
| *Kana* | The *maatra* (abbreviated vowel sign) for /*aa*/ (ा) in Marathi. |
| *Maatra* | Secondary vowel diacritics (ा, ी, ँ). |
| *Moolakshara* | *Moolakshara* refers to the primary symbols in the Indian scripts. For example, in Marathi and Kannada scripts, there are at least 49 primary symbols (the number varies a little by language), such as क, ख, ग. |
| **Phoneme** | Phonemes represent the smallest units of sound that cannot be further divided into smaller sounds. For example, the word "cat" can be broken down into three phonemes: /k/+/a/+/t/. |
| **Phonemic awareness** | Awareness of phonemes is referred to as phonemic awareness. |
| **Phonics** | Phonics is a method of teaching reading and writing that involves developing a systematic awareness of sound-symbol relationships. |
| **Phonological awareness** | The ability to recognise and work with the sounds in spoken language. |
| **Orthography** | The orthography of a script lays down the rules and norms for writing down the sounds of a language. |
| *Rasva (हस्व) maatra* | Diacritic symbol for short vocalic sounds (ि, ु). |
| **Syllable** | A syllable is a unit of spoken language that has at least one vocalic sound in it, with or without surrounding consonants. For example, the word "table" has two syllables: ta-ble. |
| *Samyuktakshara/ jodakshara* | Conjunct consonant sounds. In Indian scripts, they are sometimes represented by unique symbols, for example (श्र, क्ष) in Hindi. At other times, they are represented by half-forms of *aksharas* placed next to a full *akshara*. |
| *Swara* | Vocalic sounds (आ, अ, उ, ई) |
| *Varnamala* | *Varnamala* refers to the complete set of *moolaksharas* (consonants and vowels) within the Hindi language. The Hindi *varnamala* has approximately 49 different symbols. |
| *Velanti (वेलांटी)* | *Velanti* refers to the *maatra* (abbreviated vowel sign) for short and long ee *maatra* (/ɪ/ and /i:/) in Marathi. *Rasva velanti*: (ि). *Deergh velanti*: (ी). |
| *Vyanjan* | Consonant sounds (क, ख, ग). |

# CONTRIBUTORS

**NEELA APTE**

Neela Apte has completed her Masters in Social Work from Karnatak University, Dharwad, and her B.Ed. from Mumbai University. She has been working in the field of quality education since the last 20 years. She received "Dr. Devdatta Dabholkar Fellowship" for studying and understanding the role of School Management Committees (SMCs) in improving the quality of education in government schools. She has published various articles on education, parenting and other social issues in Marathi periodicals. She has worked as a Research Associate in the Literacy Research in Indian Languages (LiRIL) project from 2011-2017.

At present Neela is working at Shantilal Muttha Foundation, Pune in the field of values education.

**MAXINE BERNTSEN**

Maxine Berntsen first came to India in 1966, and spent two years teaching at Vivek Vardhini College in Hyderabad, staying at the home of Dr. S. D. Satwalekar, principal of the college. While in Hyderabad, she also started studying Telugu and Marathi. In 1963, she returned to the U.S. to do course work for a Ph.D. in linguistics, and in 1966 she returned to India to do field work for her dissertation on sociolinguistic variation in the speech of Phaltan, a taluka town in western Maharashtra. Along with competing her thesis, she also collaborated with Jai Nimbkar in developing a set of 10 books to teach Marathi to adult non-Maharashtrians. From 1970 to 1999, she went to the U.S. every other year to teach Marathi to students from the AssociatedColleges of the Midwest who were preparing to spend a year in Pune. In 1978, she renounced her American citizenship and became an Indian citizen. That same year, she started working with out-of-school children, and in 1984 founded the *Pragat Shikshan Sanstha* (PSS). The PSS had three components: *Apli Shala*, a support programme for Dalit children; *Kamala Nimbkar Balbhavan*, a full-time Marathi medium school; and an Outreach Programme, which later became the *Centre for Language, Literacy and Communication*. When the TISS M.A. in Elementary Education was being set up, Maxine and Jane Sahi developed the course in First Language Pedagogy, which they taught from its inception until last year. In 2012, she was invited to join the new TISS campus at Hyderabad as Professor Emerita. At present, she is teaching one course in TISS, and heading an ELI research project to adapt for Telugu the reading approach she had originally developed for Marathi. She has received many awards for her work, the most recent being "Marathi Abhyasak Puraskar", an award from the Maharashtra government for her work in Marathi. A sketch of her life and work was also included in the volume *Daughters of Maharashtra*. For her 80th birthday, in 2015, Sujata Noronha and Jane Sahi brought out *Threading Texts within Contexts*—a selection of her poetry and her writings on language and education.

## HARSHITA V. DAS

Harshita V. Das works as a Project Coordinator with the Early Literacy Initiative. She has an M.A. in Education from Azim Premji University, Bangalore. She has worked as a teacher at an alternative school in Bangalore, and has worked with preprimary and primary teachers in a low income private school, where she supported them with the teaching and learning of English language. She has also volunteered at an NGO that works with children of a migrant labour community, where she co-taught Kannada and English, and has actively participated in the setting up and functioning of a library in the government school that hosts the NGO. Her key areas of interest are critical literacy, language and culture, with an emphasis on the idea of balanced bilingualism.

She is very fond of children's literature and the idea of engaging young children with it. When she is not going crazy collecting children's literature you can find her happily getting her hands dirty with clay and paint. She feels a deep connect with birds in the wilderness and stars in the vast sky.

## KEERTI JAYARAM

Keerti Jayaram is currently the Director of the *Organisation for Early Literacy Promotion* (OELP). OELP aims to build strong foundations in early literacy and learning (ELL) for young learners from diverse sociocultural and linguistic contexts which include children from low literate communities in rural Rajasthan. The outreach of this work extends to seven districts in Rajasthan and a few other states of India. Keerti has represented OELP on various national and international platforms such as Advisory Body for Early Literacy of the MHRD, Reading Cell at NCERT and UNESCO Asia Summit.

Previously, she has taught pedagogy of language courses in the B. El. Ed Programme in Lady Shri Ram College, New Delhi, from 2002 to 2006. Her professional experience includes intensive engagement through Individual Education Plans (IEPs) for children with special learning needs from the American International School in New Delhi from 1999 to 2005. She also worked as Coordinator of the Ramjas Teacher's Centre for nine years. This was the period when she was able to actively explore innovative classroom pedagogies such as process writing, writers' workshops, literature circles, cooperative learning, circle time and learner centered approaches to science, EVS and mathematics along with innovative approaches to assessments within each of these domains. Keerti has had more than 30 years of experience in elementary education as a teacher, teacher educator, curriculum developer, researcher and parent, and has interacted actively with the academic world as well as with the multiple worlds of education practitioners. She has several publications to her credit.

**SHAILAJA MENON**

Shailaja Menon is Professor and Programme-in-charge of the Early Literacy Initiative at Tata Institute of Social Sciences, Hyderabad. Concurrently, she also works as visiting faculty in the area of Language and Literacy at the School of Education, Azim Premji University, Bangalore.

Shailaja has completed BA (Psychology) from Delhi University, M.Sc. (Child Development) from MS University, Baroda, and Ph.D. in Literacy, Language and Culture from the University of Michigan at Ann Arbor. Prior to joining Azim Premji University, she has taught at the University of Colorado, Boulder, and at Jones International University. She led a longitudinal project, Literacy Research in Indian Languages (LiRIL; 2011-2017), investigating the teaching and learning of early language and literacy in Maharashtra and Karnataka. She is a co-editor of the volume: *Childhoods in India: Traditions, Trends and Transformations (2017)*. At Azim Premji University, Shailaja offers courses related to early literacy, children's literature, child development and learning, curriculum and pedagogy in the early years, and research methods. Shailaja is also a key anchor of the bi-lingual annual children's literature festival, *KathaVana*, hosted by Azim Premji University (2012-present).

She has served on the jury for the Hindu Literature for Life awards for Children's Literature (2016; 2017), and Sir Ratan Tata Trust's Big Little Book Award (2016). Shailaja's publications have appeared in international and Indian journals, and she serves on several advisory committees that are currently shaping policy and practice related to early literacy in India.

**SONALI NAG**

Sonali Nag is Associate Professor of Education and the Developing Child and Fellow of Brasenose College, University of Oxford. She has an MPhil from NIMHANS, India, and is associated with *The Promise Foundation* headquartered in Bangalore.

Following her MPhil, Sonali co-established the Consultant Psychologists Group and a Special Needs Center offering assessment, counselling and remedial support for children manifesting difficulties in school. She also began work in the Indian charity, *The Promise Foundation,* focusing on early childhood and primary school programmes for children in poverty where she remains an honorary member. For her Ph.D. she examined the impact of two interventions on literacy outcomes among multilingual children. In 2004, she began exploring the cognitive bases of learning to read in the Indic writing system of South Asia and as a Newton Fellow of the Royal Society and British Academy, began the *Children Learning to Read* project in India in 2009. She curates a unique

web resource—*Lingua Akshara*—for researchers, clinicians and teachers working in South and Southeast Asian languages. More recently, she has focused on a rigorous review of the developing countries' literature on language and literacy learning, cultural sensitivity of early grades programmes and the abiding influence of home environments and classroom practices (2013-2016). She moved to Oxford in 2017.



**NILESH NIMKAR**

Nilesh Nimkar is the Director and Trustee at *Quality Education Support Trust* (QUEST). He is an educationist working for last 15 years in tribal belts of Thane district and currently at Palghar district as an educator and as a teacher educator at state and national level. He is also a training consultant to DPEP (District Primary Education Programme, Government of Maharashtra) and consultant to UNICEF and Sir Ratan Tata Trust.



**AKHILA PYDAH**

Akhila Pydah is passionate about cognitive development and language learning in young children. An alumna of Oxford University (UK), Women's Christian College (Chennai) and St. Xavier's College (Mumbai), Akhila holds degrees in Psychology and Education.

Her professional experience includes design and evaluation of educational interventions in classrooms, including research projects at the University of Oxford and at the RJM Centre for Educational Innovations (IIM Ahmedabad). She also handled program management for USAID's READ Alliance Program. As part of Tata Trusts' *Parag Initiative*, she anchored the Library Educators' Course and developed training material for library practitioners. In her personal capacity, she set up and ran a weekend library in Gurgaon for the children in the *basti* near her house.

At Early Literacy Initiative, Akhila's work involves creating resource material for practitioners in the early language and literacy domain as well as collaborating with partner-NGOs to strengthen the respective state governments' teacher education programs. She can be reached at pydah.akhila@gmail.com

## SAJITHA S.

Sajitha co-founded the NGO *SAJAG* and works with children and young adults on issues related to education. Earlier, she worked on the longitudinal research project Literacy Research in Indian Languages (LiRIL). She contributed to understanding the issue of teaching and learning of early reading and writing of Marathi (in Maharashtra) by conducting classroom observations and interacting with children.

Prior to that, she worked with QUEST, Maharashtra, as Project Head of their flagship project on *Balbhavans*. *Balbhavans* are supplementary learning centres attached to government schools. Children from grades 1 to 4 are given quality inputs in language and mathematics. Sajitha has also worked with women to help form self-help groups. She was with *Samaj Pragati Sahayog,* Madhya Pradesh, before working in the field of education. Sajitha has a Master's in Social Work from Tata Institute of Social Sciences and a bachelor's in Economics from Mumbai University.

## SHUCHI SINHA

Shuchi Sinha is an alumna of Azim Premji University, Bangalore and has been working as a Communications Consultant with the ELI Blog and Dissemination team. Before this, she has worked as a teacher at *Adharshila Learning Centre*, a school for tribal children in rural Madhya Pradesh, and as an Academic Coordinator at the *Organization for Early Literacy Promotion* (Ajmer, Rajasthan), an organization dedicated to implementing meaningful early literacy ideas and practices in highly challenging contexts.

Amongst many things that interest her, she finds her heart almost always returning to examine the idea and possibilities of Critical Literacy. She believes that language holds tremendous emancipatory potential and possibilities, and that each child, irrespective of her context, must be given an environment to develop a sense of love and fearlessness of words. She can be reached at shuchi.10.sinha@gmail.com

# READING

I am not my sister.
Words from the books curl around each other
make little sense
until
I read them again
and again, the story
settling into memory. *Too slow*
the teacher says.
*Read faster.*
*Too babyish*, the teacher says.
*Read older.*
But I don't want to read faster or older or
any way else that might
make the story disappear too quickly
from where it's settling
inside my brain,
slowly becoming
a part of me.
A story I will remember
long after I've read it for the second,
third, tenth,
hundredth time.

**– Jacqueline Woodson**

**Source:** Woodson, J. (2014). *Brown girl dreaming.* NewYork, NY: Nancy Paulsen Books.

While teaching the script appears to be the central aim of most primary-grade classrooms in India, children's learning of the script is nowhere as successful as the time and effort spent on it might suggest. Why is this so? How can teachers teach the script more effectively, even while freeing up time to spend on other aspects of a balanced early language and literacy curriculum? What knowledge-bases would a teacher need to effectively teach students how to decode Indian scripts? The blog pieces compiled in this book bring together a rich variety of experiences and perspectives on various aspects related to this theme. The book aims to demystify key theoretical concepts related to the teaching and learning of scripts, such as, about the nature of writing systems, scripts, orthographies, phonological awareness, phases of reading, and so on. In addition, rich perspectives from practitioners working in the field have been included to introduce readers to pedagogies built to suit the contextual requirements of Indian classrooms. With a focus on the teaching and learning of Indian scripts, this book hopes to make a valuable contribution to the work and understanding of teachers, teacher educators and other practitioners in the country.