



**LLCd Symposium.**  
**POSTER PRESENTATIONS.**

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- Brief Bio:** Ms. Balambigai Narayanan is a Speech-Language Pathologist. After completion of a masters degree from the Institute of Speech and Hearing, Bangalore, she is currently working as a Lecturer in the Department of Speech-Language Pathology at MERF-Institute of Speech and Hearing, Chennai. Her areas of interest include language development and childhood communication disorders.
- Title of Presentation:** Role of knowledge of orthography and automaticity in differentiating good and poor readers in Tamil
- Abstract:** Aim: To test if good readers are different from poor readers on the knowledge of rules of orthography, and automaticity.
- Methodology: Sixty children, studying in grade III in Tamil medium schools, average age of 8 years, were chosen as subjects. Thirty high achievers and thirty low achievers were chosen based on the rank order given by the classroom teacher, and their performance on reading their classroom material. Seventy one words taken from Grade I Tamil book (familiar words) that included all the consonants and the consonants with vowel combinations (including addition/ligature) were used. Children read the words, presented on the computer screen (for 1 sec using DMDX software) as quickly and as accurately as they could. The 1 sec time duration was chosen based on reports of reading rate in children of the same age in other languages. The words that were missed /misread during brief exposure were presented again, at long exposure (the time was left flexible). Words were not chosen based on frequency, because of the unavailability of word frequency or letter frequency lists in Tamil.
- Results: Total percentage of words correctly read at brief exposure (automaticity) by the good (94.84%) and the poor readers (65.31%) indicate a significant difference ( $p < 0.001$ ) between the two groups. Though the two groups took longer times on the same words, the vocal reaction times of poor readers on an average were slower than the good readers. On rereading at leisure, good readers and poor readers could read 71.81% and 67.11% of the missed words, respectively. Hence the knowledge of rules of orthography accounted for 1.62% errors (out of the total 5.16% errors) in good readers; 11.49% errors (out of the total 34.69% errors) in poor readers.

Children in both the groups took longer than 1 sec to respond to Sanskrit consonant [ ஜ ], and to words with irregular orthography like [ து, மை, று ]. On rereading at leisure, both groups had difficulty with Sanskrit consonants /dza/, and the diphthong /ai/, (which could be attributed to visual similarities); and the letter ( றுள ), which could either be read as a diphthong /ou/ or as a vcv (/ola/) depending on the context. Hence it appears that these graphemes might take a longer time to learn.

Poor readers, in addition to the higher frequency of the above stated errors, also showed difficulty with syllables that contain the vowel /ε/, /o/ such as /mε/, /mo/. These syllables unlike the syllables with /a/, /i/ involve the addition of another symbol; thus increasing the length and complexity of the syllable. Some of the poor readers also showed difficulty with syllables with a vowel /u/. The ligature for /u/ is attached at different sites for different consonants. This variability could have resulted in confusion among the poor readers. Hence it appears that the poor readers were slower at acquiring the irregular orthographic patterns.

Conclusion: Results indicate that knowledge of orthography and automaticity are sensitive enough to differentiate between the two groups, (though the automaticity measure may need refining). They also help identify the level of difficulty, which in turn serves to give directions for remedial teaching. Hence these factors should be considered while constructing a test for reading in Tamil.