The biliterate learning environment: insights from brain and behavior

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In modern day societies, there is vast variation in the cultural environment in which literacy is acquired. One phenomenon within that environment is biliteracy, which is the acquisition of literacy skills in two distinct languages. This is particularly true of many South and Southeast Asian countries, where educational policies dictate learning English along with the native language in school. This is challenging for two reasons: (1) the native language and English often belong to distinct writing systems, and (2) children initiate reading acquisition in a language they do not speak when they enter school.

In the first part of my presentation, I will discuss different biliterate learning scenarios and the brain circuits for reading two distinct languages. In the second part, I will discuss the findings of a large scale study conducted in India to assess the literacy skills of 4,840 biliterate children. The results from this study highlighted a number of interesting issues: (1) only 30 percent of children exhibited grade-appropriate biliteracy skills, (2) oral language emerged as the most reliable predictor for literacy in that language, and (3) mother tongue literacy predicted second language literacy.

Finally, I will discuss the implications of biliterate learning environments on dyslexia and the urgent need to develop culturally relevant assessment tests for it. Dyslexia is a learning disability with a worldwide incidence of 10–15 percent wherein school children do not achieve grade-appropriate reading skills. Dyslexia often has a genetic basis and occurs due to differences in brain wiring. There is poor awareness of dyslexia in South and Southeast Asia and culturally appropriate assessment tests are missing. I will describe the development of Dyslexia Assessment for Languages of India (DALI), which contains screening tools for school teachers and assessment tools for psychologists and the need to urgently extend and disseminate it in South and Southeast Asia.