WASHINGTON: Dyslexia affects different parts of children's brains depending on whether they are raised reading English or Chinese. That finding, reported in online edition of *Proceedings of the National* , means that therapists may need to seek different methods of assisting dyslexic children from different cultures.

"This finding was very surprising to us. We had not ever thought that dyslexics' brains are different for children who read in English and Chinese," said lead author Li-Hai Tan, a professor of linguistics and brain and cognitive sciences at the

Millions of children worldwide are affected by dyslexia, a language-based learning disability that can include problems in reading, spelling, writing and pronouncing words. The International Dyslexia Association says there is no consensus on the exact number because not all children are screened, but estimates range from 8% to 15% of students.

Reading an alphabetic language like English requires different skills than reading Chinese, which relies less on sound representation, instead using symbols to represent words. Past studies have suggested that the brain may use different networks of neurons in different languages, but none has suggested a difference in the structural parts of the brain involved, Tan explained.

Tan's research group studied the brains of students raised reading Chinese, using functional magnetic resonance imaging.

They then compared those findings with similar studies of the brains of students raised reading English.