

Press Trust of India | Toronto February 21, 2013 Last Updated at 00:00 IST

Bilingual kids have better 'working memory' than peers

Bilingual kids develop a better working memory - which processes and updates information over short periods of time - than their monolingual peers, researchers claim.

The working memory plays a major role in the execution of a wide range of activities, such as mental calculation or reading comprehension, researchers said.

It includes the structures and processes associated with storage and processing of information over short periods of time, according to the study conducted at the University of Granada and the University of York in Toronto, Canada.

It is one of the components of the so-called "executive functions": a set of mechanisms involved in the planning and self-regulation of human behaviour. Although the working memory is developed in the first years of life, it can be trained and improved with experience.

According to the principal investigator of this study, Julia Morales Castillo, from the University of Granada, this study contributes to better understand cognitive development in bilingual and monolingual children.

"Other studies have demonstrated that bilingual children are better at planning and cognitive control - tasks involving ignoring irrelevant information or requiring a dominant response. But, to date, there was no evidence on the influence of bilingualism on the working memory," Castillo said in a statement.

The study sample included bilingual children between 5 and 7 years of age (a critical period in the development of the working memory).

The study published in the Journal of Experimental Child Psychology, found that bilingual children performed better than monolingual children in working memory tasks.

"The results of this study suggest that bilingualism does not only improve the working memory in an isolated way, but they affect the global development of executive functions, especially when they have to interact with each other," Castillo said.