

# Exposure at home key to kids picking up mother tongue

Pioneer NIE study also finds cognitive ability plays bigger role for English

**Amelia Teng**  
Education Correspondent

It pays to speak your mother tongue language around your children, new research shows.

A first-of-its-kind study of about 800 children by the National Institute of Education found the amount of exposure a child has to his mother tongue language plays the biggest role in how much he picks up.

But how good the same child is in English depends more on his own cognitive intelligence, which largely cannot be trained.

These results, published in a top academic journal *Applied Psycholinguistics*, are part of the first wave of data collection from Singapore Kindergarten Impact Project, a study of pre-school children in Singapore.

One of the project's areas of focus is mother tongue language development at an early age.

Dr Sun He, a research scientist who is part of the team and the



Research scientist Sun He is part of a study by the National Institute of Education which involves 805 children and looks at how differently pre-schoolers acquire language. ST PHOTO: JASMINE CHOONG

lead author for the paper, said: "As early as in K1, there are some differences in children's language proficiency and how they acquire it."

The children in the study – which is the first in Singapore to look at how differently pre-schoolers acquire language – were given tests to assess their language and cognitive abilities such as working memory, non-verbal intelligence and phonological awareness.

Of the 805 pre-school children

involved, 551 were Chinese, 105 Malay and 149 Tamil. They were aged between four and five.

Their parents completed a questionnaire which asked them which languages they used at home, how much their children spoke the languages and how much they are exposed to different media like television and books.

Dr Sun, whose interest is in bilingualism, noted that children's learning of languages depends on

internal and external factors.

Internal factors refer to cognitive abilities such as memory or multitasking skills, while external factors are related to the level of exposure in a person's environment.

Most of the families in the study used English more than their mother tongue languages, and the children also knew more English words.

Dr Sun said: "The study found that across the three mother tongue languages, home environment is way more important than cognitive factors in explaining individual differences in children's vocabulary size."

For example, a child's home environment accounted for more than five times of the variation in Chinese vocabulary size compared to cognitive ability, while it was the opposite for English language.

Dr Sun explained: "In Singapore, because of ample input of the English language in the environment, you've already reached a threshold of input. Beyond that, cognition plays a more important role in English language proficiency and differences between individual children."

But the "threshold" of language input has not been met across all three mother tongue languages, she added. "So it's the home environment and exposure that heavily influence how early children learn their mother tongue and have a grasp of vocabulary."

Besides reading books or listening to the radio, children also need to actively use the language to become more confident in it, instead of being passive learners, she said.

"Without usage, the language won't be alive."

The Singapore Kindergarten Impact Project study, which is looking at a range of issues including socio-emotional skills, motor skills and language development, began in 2014 and involved three years of data collection.

More results are expected to be released by the end of this year.

ateng@sph.com.sg