

# Indigenous children don't need number words to 'count', says new study

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The study, by researchers from the University of Melbourne and University College London, is set to be published in the journal *Proceedings of the National Academy of Sciences*.

The study investigated the number skills of children from two Indigenous communities – a group of Warlpiri speakers in the Tanami Desert, north west of Alice Springs, and Anindilyakawa speakers from Groote Eylandt in the Gulf of Carpentaria – and a group of Indigenous preschool children from Melbourne.

It found that even though these children lived in communities which did not have words or gestures for numbers they were able to demonstrate strong numeracy skills based on quantity and spatial concepts.

It also found that their skills were equal to the English-speaking indigenous children.

Study co-author Associate Professor Bob Reeve, from the University of Melbourne's School of Behavioural Science, says the study strongly contradicts previous research which claimed people needed a language with "counting words" to develop number skills.

He says that it has strong implications for the way numeracy is taught, not only to Indigenous children, but to students from all cultures.

And it could also be a key to a better understanding of why some

children struggle with basic numeracy skills.

"This study shows that number abilities are not simply based on culture or language," Associate Professor Reeve says.

"Our findings are consistent with the idea that we have an innate system for representing quantity ideas and that the lack of number words in a language should not prevent us from completing simple number and computation tasks."

Associate Professor Reeve says the study shows Indigenous Australian children have very strong basic quantity skills which can be the basis for building further mathematical skills.

"We need to investigate ways in which we can add on to these building blocks to develop ways of teaching numeracy that are relevant to Indigenous students culture," he says.

"We also need to redefine the way we think about numeracy across the board – moving away from the view that we need words to describe numbers and basic computations."

Source: University of Melbourne

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