

# Bilingualism 'can increase mental agility'

August 3 2012

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Bilingual children outperform children who speak only one language in problem-solving skills and creative thinking, according to research led at the University of Strathclyde.

A study of primary school pupils who spoke English or Italian- half of whom also spoke Gaelic or Sardinian- found that the [bilingual children](#) were significantly more successful in the tasks set for them. The Gaelic-speaking [children](#) were, in turn, more successful than the Sardinian [speakers](#).

The differences were linked to the mental alertness required to switch between languages, which could develop skills useful in other types of thinking. The further advantage for Gaelic-speaking children may have been due to the formal teaching of the language and its extensive [literature](#).

In contrast, Sardinian is not widely taught in schools on the Italian island and has a largely oral tradition, which means there is currently no standardised form of the language.

Dr Fraser Lauchlan, an Honorary Lecturer at the University of Strathclyde's School of [Psychological Sciences](#) & Health, led the research. It was conducted with colleagues at the University of Cagliari in Sardinia, where he is a Visiting Professor.

Dr Lauchlan said: "Bilingualism is now largely seen as being beneficial to children but there remains a view that it can be confusing, and so

potentially detrimental to them.

"Our study has found that it can have demonstrable benefits, not only in [language](#) but in arithmetic, problem solving and enabling children to think creatively. We also assessed the children's vocabulary, not so much for their knowledge of words as their understanding of them. Again, there was a marked difference in the level of detail and richness in description from the bilingual pupils.

"We also found they had an aptitude for selective attention- the ability to identify and focus on information which is important, while filtering out what is not- which could come from the 'code-switching' of thinking in two different languages."

In the study, a total of 121 children in Scotland and Sardinia- 62 of them bilingual- were set tasks in which they were asked to reproduce patterns of coloured blocks, to repeat orally a series of numbers, to give clear definitions of words and to resolve mentally a set of arithmetic problems. The tasks were all set in English or Italian and the children taking part were aged around nine.

During the research, Dr Lauchlan's post at the University of Cagliari was funded by the Sardinian Regional Government (Regione Autonoma della Sardegna).

The study has been published in the *International Journal of Bilingualism*.

Provided by University of Strathclyde, Glasgow

Citation: Bilingualism 'can increase mental agility' (2012, August 3) retrieved 9 April 2024 from <https://medicalxpress.com/news/2012-08-bilingualism-mental-agility.html>

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