

Learning a second language after age 10 boosts brain, study finds

January 12 2015



Broadway Elementary in Los Angeles is a part of a growing number of public schools to offer a dual-language immersion program

Plenty of research has shown that learning a second language can boost brainpower, but a new study out Monday suggests that the effects extend to those who begin in middle childhood.

The study in the *Proceedings of the National Academy of Sciences*

showed that people who began learning English around age 10 and were immersed in the [language](#), meaning they heard and used it in daily life, showed improvements in the structure of the brain's white matter compared to people who grew up speaking only English and did not learn a second language.

These "[higher levels](#) of structural integrity" were in areas responsible for [language learning](#) and semantic processing.

The findings mirror observations from previous studies that found these improvements in people who learned a second language at a much earlier age.

Researchers studied brain scans from 20 people, all around the age of 30, who had lived in Britain for at least 13 months.

They had all started learning English as a second language around age 10.

Their imaging analyses were compared to 25 people of similar age who spoke only English.

"Everyday handling of more than one language functions as an intensive cognitive stimulation that benefits specific language-related brain structures by preserving their integrity, and therefore it protects them against deterioration in older age," said the study led by Christos Pliatsikas of the University of Kent School of Psychology.

Since previous studies had predominantly relied on people who learned two or more languages beginning in infancy, scientists say more research is needed to close in on exactly when these positive brain changes begin to take root.

More information: The effects of bilingualism on the white matter

structure of the brain, *PNAS*,
www.pnas.org/cgi/doi/10.1073/pnas.1414183112

© 2015 AFP

Citation: Learning a second language after age 10 boosts brain, study finds (2015, January 12)
retrieved 6 May 2024 from
<https://medicalxpress.com/news/2015-01-language-age-boosts-brain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.