

BENEFITS OF LEARNING A SECOND LANGUAGE AT AN EARLY AGE

Brain Boost When Toddlers Learn Spanish?

When toddlers learn Spanish, they are sharing the language of over 400 million people, the backbone of vibrant cultures, unique history and rich heritage. Beyond the obvious benefits of culture and communication, however, recent research has presented a startling new theory: toddlers who learn Spanish as a second language appear to develop stronger minds. The same holds true for young students of other foreign languages, as well.



Researchers led by London neurologist Dr. Andrea Mechelli studied the brain images of bilinguals, and concluded that learning a foreign language increases the grey matter density in the brain. Thus, when toddlers learn Spanish, they gain structural and functional cognitive advantages over their monolingual peers.

When Toddlers Learn Spanish, Cognitive Benefits are Long Term.

Amazingly, these cognitive benefits continue into old age. *The New York Times* reported in January 2007 that learning multiple languages can ultimately delay the onset of dementia by nearly four years in elderly patients. A preliminary study was conducted of 184 senior citizens at a Canadian memory clinic between 2002 and 2005; roughly half of these individuals were bilingual in a language they had learned as a child or young adult. The results revealed that the mean age when the bilingual patients developed dementia was 75.5 years; whereas patients who spoke only one language experienced the onset of dementia at 71.4 years, on average.

This confirms what Dr. Mechelli and her colleagues reported in *Nature*, namely: the structure of the human brain is altered by the experience of acquiring a second language.

Broadly speaking, grey matter allows us to process information, and controls aspects of sensory perception, memory and speech. (Other areas of the brain consist of white matter, which controls autonomous functions, like breathing.) With more grey matter at their disposal, toddlers who learn Spanish may potentially experience greater mental agility, flexibility and creativity.

Cookie magazine recently spoke with Dr. Ellen Bialystok, a professor of psychology at Toronto's York University, and a prominent researcher of bilingualism and cognition. "They see things in different ways and can more easily switch back and forth," she said, regarding children who speak multiple languages. "It's good preparation for today's multitasking world."

More Advantages when Toddlers Learn Spanish or Other Languages

A child's age is said by some to be an important factor for learning a foreign language. Experts have said that younger children possess greater neural and linguistic "plasticity," which allows them to acquire languages with relative speed and ease. It's no surprise that toddlers learn Spanish quicker than adults, but Dr. Mechelli's research shows the most significant advantage exists for people who acquire a second language before age five.

Dr. Bialystok, in turn, dismisses concerns that bilingualism can cause confusion or learning disabilities in young children. She told *Cookie* there is not a shred of evidence to support these myths.

In fact, toddlers who learn Spanish or another second language score better on a variety of psychological tests designed to evaluate their mental sophistication and dexterity. *The Canadian Journal of Experimental Psychology* recently published Bialystok's findings on experimental tasks like the "Stroop test" and the "Simon task," which require children to resolve contradictory perceptual information. Bilingual children consistently outperformed their monolingual peers.

The College Entrance Examination Board has reported that students who study a foreign language for four or more years tend to score higher on the verbal section of the Scholastic Aptitude Test (S.A.T.). There is also some evidence to suggest that when toddlers learn Spanish or another foreign language, they automatically enhance their math and logic skills, as well.

Safe to say, however, when encouraging their toddlers to learn Spanish, most parents aren't thinking about its effects on old age or grey matter. They tend to stay focused on more immediate concerns. Should I enroll my child in a school-based immersion program? Hire a Spanish-speaking tutor or nanny? Or, begin instruction at home?

Regardless of the approach, when it comes to investing the time and effort necessary to teach a preschooler to speak a foreign language, it is encouraging to know that their "brain boost", and many other benefits, will last a lifetime.