

What are the benefits of knowing two languages? Many scientific studies show that growing up bilingual is great for kids' brain development. Being bilingual may also be good for getting a job. Many businesses want to hire people who speak more than one language because they consider this skill a valuable attribute.

But most Americans do not know a second language, and those who do typically do not know the second language very well. Children who come from homes where English is not the family's native language often forget the language their parents speak.

How did we become so monolingual? Some say it is because we are a multicultural nation and it would be too confusing if every group were to use its own language. Unlike educated Americans, most educated Europeans, Asians, and Africans speak several languages, often including English. In Europe, students are required to take two distinct foreign languages in school. Most people around the world think that knowing several languages is critical; multilinguals can participate in the political and economic activities taking place globally.

Even the U.S. government and U.S. Armed Forces are constantly looking for speakers of languages relevant to facilitating our economic and foreign policy. For example, they seek Arabic speakers, but very few Americans (unless they come from Arabic-speaking families) study Arabic in school or university. Currently, the State Department pays sixfigure salaries to speakers of Farsi, Pashto, and Arabic.

Knowing more than one language seems to be good for learning, employment, and maybe even national security. So how can parents, schools, and society facilitate opportunities for learning languages? Should American students all be required to learn a language in addition to English?

## economic | multicultural | attribute | facilitate | distinct

## USE THE FOCUS WORDS * and alternate parts of speech <br> economic (adjective) financial, related to money



Sample Sentence: These are hard economic times; many people are losing their jobs and their homes because of a bad economy.

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Turn and Talk: Should children be involved in the economic decisions of their households? Why or why not?
multicultural (adjective) related to more than one culture

$\stackrel{\square}{\square}$Sample Sentence: The multicultural art festival showed the work of artists from around the world.

We Turn and Talk: Would you describe your city or neighborhood as multicultural? Why or why not?
attribute (noun) skill, feature
$\Rightarrow$ Sample Sentence: Akhil is a very intelligent boy, but his best attribute is his honesty.
T. Turn and Talk: What are some attributes that the President of the United States should have?
*attribute (verb) to hold responsible for; to credit
Sample Sentence: Marcus attributed his team's victory to teamwork and practice.
Th Turn and Talk: To what do you attribute your success in school? I attribute my success in school to $\qquad$ .
facilitate (verb) to make easy or possible
$\square$ Sample Sentence: The internet facilitates the sharing of photos, since you can easily upload and view pictures in just seconds.

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Turn and Talk: How can you help facilitate the arrival of a new student to your school?
distinct (adjective) different
Sample Sentence: Margarita is distinct from her friends because she is the only one who plays piano.
We Turn and Talk: How are you distinct from other students at your school?

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## DO THE MATH

In the United States, being bilingual is an attribute that can facilitate getting a good job. Today, the U.S. has many political, economic, and military connections with other countries. The U.S. is also full of immigrants from around the world who speak different languages. In a multicultural country like the U.S., speaking more than one language is a distinct advantage.

Option 1: In 2006, during the Iraq War, only 33 of the 1,000 U.S. employees at the U.S. Embassy in Iraq spoke Arabic. Of these 33 , only six were fluent. What percentage of embassy employees spoke fluent Arabic?
A. .006\%
B. $.06 \%$
C. $6 \%$
D. $6 \%$.

Option 2: The main languages spoken in Afghanistan are Dari and Pashto. The U.S. military's Defense Language Institute is now training 200 soldiers each year to speak basic Dari and Pashto. In 2009, there were about 100,000 U.S. troops in Afghanistan. At the rate of 200 per year, how many years would it take to train 100,000 soldiers in basic Dari and Pashto?

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## THINK SCIENTIFICALLY

Mr. Seemy's students return from their foreign language class full of new words and ideas, but Erik is doubtful about the benefits attributed to studying a second language.
"I know learning a new language helps me to appreciate our multicultural community, but does it do anything else?" says Erik.
"Actually," says Chelsea, "learning a second language has economic benefits because it can help you find a job."
"That's true!" chimes in Mr. Seemy. "But did you know that it also helps facilitate brain development?"
"Wow, really? Does that mean that speaking two languages can actually physically change your brain?" asks Erik.

Erik is interested in this topic and finds an information sheet on "neuroplasticity" of the brain to share with his classmates.

## Neuroplasticity

Neuroplasticity can be described as "the ability to adapt to ongoing changes and to process information efficiently and adaptively."1 Think of it as mental flexibility. Just as you can exercise your muscles to make them strong, you can exercise your brain to make it work quickly, efficiently, and accurately.

People who are bilingual challenge their brains to function in two distinct languages at the same time, which exercises the frontal lobes of their brains. The frontal lobe is where the brain makes quick decisions, plans, solves problems, and processes language.

Scans of bilingual people's brains show that, on average, their frontal lobes are stronger and more active than those of monolingual people's. ${ }^{1}$

|  | Monolingual | Bilingual |
| :---: | :---: | :---: |
| Memory (score out of 10) ${ }^{2}$ | 6.2 | 7.8 |
| Onset of Alzheimer's (age in years) ${ }^{1}$ | 75.4 | 78.6 |
| Response Time (milliseconds) ${ }^{3}$ | 1,437 | 911 |
| Language Ability (score out of 100) ${ }^{3}$ | 85.8 | 91.9 |

## Data Sources:

1. Bialystock, E., Craik, F., \& Luk, G. (2012). Bilingualism: consequences for brain and mind. Trends in Cognitive Science.
2. Kormi-Nouri, R., Moniri, S., \& Nilsson, L. (2003). Episodic and semantic memory in bilingual and monolingual children.
3. Bialystock, E., Craik, F., Klein, R., \& Viswanathan, M. (2004). Bilingualism, Aging \& Cognitive Control - evidence from the Simon Test.

What other everyday activities might a bilingual person potentially be better at because of their efficient frontal lobe?

What other experiments would you like to see conducted with both monolingual and bilingual people to see if there are additional benefits of speaking two languages?

Th As of 2008, only 58 percent of all middle schools in the U.S. offered foreign language instruction. While over 90 percent of high schools offered a foreign language, studies have shown that students are able to adopt a new language more easily at a young age. Are foreign languages offered at your school and in your district? Discuss with your classmates how you might be able to use this data to convince the administrators in your district to strengthen your foreign language program.

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## DEBATE THE ISSUE

Pick one of these positions (or create your own).


Americans should be required to learn English and only English.

Jot down a few notes on how to support your position during a discussion or debate.

## OR



Students who speak another language at home should be encouraged to continue using it while Iearning English.
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Be a strong participant by using phrases like these:


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## TAKE A STAND

Support your position with clear reasons and specific examples. Try to use relevant words from the Word Generation list in your response.
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    Discussion Question: In our multicultural world, there are many languages that schools could teach. If more American soldiers knew Arabic, they would have an easier time talking to the people of Iraq. Now that China is an economic power, knowing Chinese is an attribute that might facilitate getting a job. Are these good reasons for teaching Arabic and Chinese in school? Or, should our political and economic goals be distinct from the reasons we teach languages? Should we choose to teach languages that will help keep our country strong? How should we decide? Explain your answer.

