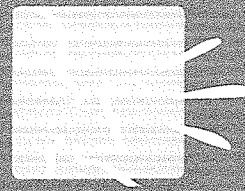


# BREAKING NEWS

U.S. and International Language News



## Language Learning Improves Brain Function

A comprehensive study published last fall by the European Commission reveals evidence from diverse sources that learning a second language almost certainly brings benefits that go beyond the ability to use the language itself.

The report, entitled *The Contribution of Multilingualism to Creativity*, includes a statistical analysis of key research on the impact that knowing and using more than one language has on thinking and the brain. It argues that there is a dovetailing of results between studies conducted over the last 40 years, including recent findings from the neurosciences. The research, often involving the use of neuro-imaging techniques, is helping to reveal more clearly what happens in the brain when a person learns or uses more than one language.

The study reports six major benefits of language learning that were found in the research:

- **Enhanced Learning Capacity** (i.e., "The Learning Mind"): Knowledge of languages can lead to superior memory function, especially short-term "working" memory. This enables the brain to hold information for longer while the thinking processes are engaged. Enhanced memory can have a profound impact on cognitive function. One implication is the positive impact of languages on the learning of other educational subjects.
- **Enhanced Mental Flexibility** (i.e., "The Flexible Mind"): Seeing the world through "different lenses" opens up pathways to more options and avenues for thought. Knowledge of more than one language leads to added value which goes beyond language itself, and which enables the development of special multi-competences. This may be significant for developing certain types of skills in thinking and communication (digital literacy) for the Information Age.
- **Enhanced Problem-Solving Capability** (i.e., "The Problem-Solving Mind"): Superior performance in problem solving that is cognitively demanding, including abstract thinking skills, higher concept formation skills, and creative hypothesis formulation. These build people's capacity to identify, understand, and solve problems. A key skill in problem solving is the ability to ignore distracting and irrelevant information. This form of inhibitory control acts like a filter enabling the individual to focus on a given task.
- **Enhanced Interpersonal Ability** (i.e., "The Interpersonal Mind"): Multilingualism can enhance interpersonal communication awareness and skills through helping people to better perceive the communicative needs of others; to be more insightful in "reading" situations through contextual sensitivity; and to develop multiple interactional skills in communication. A superior potential for social communication can be a powerful ingredient in enhancing personal creativity.
- **Expanded Metalinguistic Ability** (i.e., "The Metalinguistic Mind"): Metalinguistic ability leads to greater understanding of how language is used to achieve specific goals in life and how to achieve deeper understanding of how language functions. Multilingualism promotes a deeper understanding of "how to go beyond the words," enriching the use of any language, and helps the person become a more skilled communicator.
- **Reduced Age-Related Mental Diminishment** (i.e., "The Aging Mind"): Multilingualism is linked to a slowdown of age-related mental diminishment such as certain forms of dementia. It appears to slow down the rate of decline of certain cognitive processes as a person ages by helping the brain to tolerate pathologies. The multilingual mind's ability to resist neuropathological damage is considered to be in the range of 2-4 years. Delays in mental decline of even up to six months are viewed as having considerable implications for public health and for society. The link to creativity is the greater potential for cognitive health amongst the older age groups.

This study is the first known "macro" analysis of the available evidence about language learning. It involved searching through diverse studies for common findings, with particular attention given to recent research on the brain. Since 2000, there has been a steady increase in the number of reports being published in the educational neurosciences. Find out more online at [eacea.ec.europa.eu/llp/studies/documents/study\\_on\\_the\\_contribution\\_of\\_multilingualism\\_to\\_creativity/case\\_studies\\_en.pdf](http://eacea.ec.europa.eu/llp/studies/documents/study_on_the_contribution_of_multilingualism_to_creativity/case_studies_en.pdf).

## Resources


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Online Resources: Digests

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### Spanish for Spanish Speakers: Developing Dual Language Proficiency

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The increasing number of students who enter U.S. schools from homes where languages other than English are spoken, and the recognition that proficiency in non-English languages is a valuable national resource, have generated interest in the field of heritage language instruction. A heritage language student is "a language student who is raised in a home where a non-English language is spoken, who speaks or at least understands the language, and who is to some degree bilingual in that language and in English" (Valdés, 2001, p. 38).

The fastest growing heritage language population in the United States is Spanish-speaking immigrants and Americans of Hispanic descent whose families came from Central America, Cuba, Mexico, Puerto Rico, and South America. The inclusion of Spanish-speaking students in foreign language classes places additional demands on teachers, who may be prepared to teach only speakers of English. As a result, a growing number of secondary schools, colleges, and universities in states with large Hispanic populations offer separate Spanish for Native Speakers (SNS) courses or programs tailored to the needs of these students.

#### The Need for Special Courses

Since the late 1970s and early 1980s, the practice of teaching Spanish to Spanish speakers has achieved wide recognition. During this period, increasing numbers of students from Hispanic backgrounds began enrolling in Spanish courses at the secondary and postsecondary levels. Teachers trained to teach Spanish as a foreign language to English speakers found themselves teaching classes in which an increasing percentage or even a majority of the students were not the traditional foreign language learners that the teachers were trained to teach (Draper & Hicks, 2000). In some cases, the Hispanic students were more fluent in oral Spanish than the teacher was. According to Campbell (1996), the average heritage language student possesses a level of competence in many aspects of his or her ancestral language that far exceeds what typical students in foreign language courses can attain after many years of formal study. However, there is consensus among foreign language teachers that these students need to develop other areas of Spanish language proficiency. For example, many students have an extensive vocabulary in some contexts but a restricted one in others. Many are unfamiliar with the formal grammar of Spanish and do not read or write it. The challenges of teaching Spanish to students who have no experience with the language are clearly different from those involved in helping students develop proficiency in a language in which they already have considerable competence (Bills, 1997).

#### Student Characteristics

To fully understand the goals and challenges of teaching Spanish to Spanish speakers, it is important to understand the diverse backgrounds of students who participate in Spanish courses and their motivations for studying a language they already know. Students include the following groups:

- Third- or fourth-generation U.S.-born Hispanic students considered to be receptive bilinguals. These students are English dominant and understand almost all spoken Spanish, but they have limited speaking skills in Spanish and do not read or write it.
- First- or second-generation bilinguals who possess different degrees of proficiency in English and Spanish. In most cases, these students have received their education in English and have developed few if any literacy skills in Spanish.
- Recent immigrants to the United States who are Spanish dominant. Their level of English proficiency, the amount of formal education they have had in Spanish, and their literacy skills in Spanish vary (Valdés, 2001).

In all of these groups, language proficiency may vary from individual to individual. Many students are completely fluent in oral Spanish (both speaking and comprehending), others speak and understand Spanish fairly well, while others possess only basic oral skills in Spanish. In addition, students come from a number of cultural backgrounds and speak different varieties of Spanish.

### Goals of SNS Instruction

SNS courses offer Spanish-speaking students opportunities to study Spanish formally in an academic setting in the same way that native-English-speaking students study English language arts. Spanish-speaking students participate in SNS courses for a number of reasons. These may include a desire to reactivate the Spanish they have learned in the past and develop it further, to learn more about their language and cultural heritage, to acquire literacy skills in Spanish, to develop or augment academic language skills in Spanish, to enhance career opportunities, or to fulfill a foreign language requirement. The skills that students can acquire range from learning grammar and spelling and developing basic academic vocabulary in Spanish to learning how to critically analyze a text, write poetry, or acquire new information in different academic content areas.

Valdés (1997) delineates the following goals of SNS instruction: Language maintenance. Based on the view that Spanish can be maintained across generations through the formal study of Spanish, this instructional goal focuses on grammar, reading and writing, vocabulary development, exposure to the language and culture of Hispanic communities, and consciousness raising activities about Spanish language and identity.

Expansion of the bilingual range. The language proficiency of many bilingual students is not equally developed in their two languages. For example, they may possess the cultural understanding to comprehend a particular exchange but be unable to express themselves using the appropriate vocabulary and grammar. The goal of expanding the bilingual range moves beyond developing initial expressive and receptive language abilities to cultivating a much broader command of the language.

Acquisition of a prestige variety. Many students who participate in SNS courses speak what may be interpreted as rural or stigmatized varieties of Spanish. Instruction aimed at teaching students the prestige or standard variety involves developing metalinguistic awareness about the differences between the standard and other varieties, teaching traditional grammar, and teaching when it is appropriate to use more or less formal Spanish.

Transfer of literacy skills. According to Cummins (1984), language skills can be transferred across languages in a manner that facilitates the acquisition of first language skills in the second language. Peale (1991) emphasizes the need for Spanish-speaking students to develop not only their oral language but also their literacy skills in Spanish. In the process, they enhance their English literacy development as well.

### Evaluating the Goals

Valdés (1997) suggests that the initial goal of SNS instruction was to develop language skills in Spanish speakers that would allow them to participate in advanced placement courses in Spanish, with a strong focus on grammatical correctness. She argues that instruction must move beyond grammar to a focus on teaching students to function effectively in oral and written discourse, including in professional settings.

SNS educators are also concerned that an inordinate focus on instruction in prestige varieties of Spanish may harm students by suggesting that the language they have learned at home and in their communities is inadequate. Collison (1994) reports the views on this issue of several leaders in SNS research and education. Francisco Alarcón (University of California, Davis) points out that many people view the Spanish spoken in the barrio as inferior. George Blanco (University of Texas, Austin) suggests that instructors should build on what students already know rather than trying to replace it. Ana Roca (Florida International University) believes that SNS instruction should focus on expanding students' cultural knowledge about their Hispanic heritage and helping them develop more formal registers--academic and professional varieties of the language--without making them feel deficient in the process.

### Program Design, Instructional Strategies, and Materials

In the late 1980s and early 1990s, few resources were available for educators seeking to establish SNS programs or classes or to work with the Spanish speakers in their foreign language classes. Teachers generally relied on instructional strategies that they used with their English-speaking students and on self-made materials. Recently, more attention has been given to developing programs, instructional strategies, curricula, materials, and assessments designed specifically for Spanish speakers. A number of recent publications provide guidelines and resource lists (see, e.g., American Association of Spanish and Portuguese, 2000). See also Pino & Pino (2000) for a description of a 5-year SNS university program, with surveys for developing learner profiles and determining learner needs.

Some publications focus specifically on instructional strategies and activities that promote interaction among students, teachers, and community members (Carrasquillo & Segan, 1998; Colombi & Alarcón, 1997; Merino, Trueba, & Samaniego, 1993; Rodríguez-Pino, 1994). Roca and Colombi (in press) describe a number of ways that teachers can promote interaction and facilitate oral and written activities that build students' academic and professional skills in Spanish. In her textbook *Nuevos mundos*, Roca explains how content-based and thematic approaches that develop students' knowledge in important content areas (e.g., cultures and civilizations) while developing their language skills work well in SNS courses.

Numerous textbooks and materials designed for teaching Spanish-speaking students have become available in recent years, such as *Entre mundos* (Alonso-Lyrintzis, Zaslow, & Villarreal, 1996, Prentice Hall), *Nuevos mundos* (Roca, 1999, John Wiley & Sons), *Español escrito* (Valdés & Teschner, 1999, Prentice Hall), *Nosotros y nuestro mundo* (Schmitt & Woodford, 2000,

Glencoe/McGraw-Hill), and *Tu mundo* (Samaniego, Alarcón, & Otheguy, 2002, McDougal Littell). Many textbook publishing companies now maintain special divisions for the production and marketing of SNS textbooks and materials. In addition, many textbook series for Spanish instruction to English speakers offer supplementary materials, such as workbooks and readers, for Spanish speakers enrolled in the classes.

The National Foreign Language Center has collaborated with the Center for Applied Linguistics to create an annotated bibliography of these and other Spanish textbooks and materials for Spanish speakers that are used in K-12 and university instruction. This bibliography will be online at the Web site of LangNet, the national portal for language resources, sponsored by the National Foreign Language Center.

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