

What Does Research Report About Foreign Languages?

FOREIGN LANGUAGES IN THE ELEMENTARY SCHOOLS

I. Pronunciation

Children have the ability to learn and excel in the pronunciation of a foreign language (Dulay and Krashen; Krashen and Long, et al.; Krashen and Terrell).

II. Higher Scores

Children who have studied a foreign language in elementary school achieve expected gains and even have higher scores on standardized tests in reading, language arts and mathematics than those who have not (Masciantonio, 1977; Rafferty, 1986).

In the area of language arts, students of second languages are thought to improve their reading comprehension in the native language and also score higher in reading achievement, including vocabulary, cognitive learning, and total reading ability (Masciantonio, 1977; Rafferty, 1986).

III. Listening Skills

Foreign language study has been shown to enhance listening skills and memory (Rattle, 1968), and the development of second language skills can contribute a significant additional dimension to the concept of communication.

IV. Basic Skills

The Louisiana Report: Second Language Study Improves Basic Skills (Rafferty, 1986). The results of this study indicate that regardless of their race, sex, or academic level, students in foreign language classes outperformed those who were not taking foreign language on the third, fourth, and fifth grade language arts sections of Louisiana's Basic Skills Tests. Foreign language study appears to increase the scores of boys as much as girls, and blacks as much as other races. This finding supports the notion that, beginning as early as third grade, second language study facilitates the acquisition of English language skills.

V. Cognitive Development

Children who have studied a foreign language show greater cognitive development in such areas as mental flexibility, creativity, divergent thinking and higher order thinking skills (Foster and Reeves, 1989;

Landry, 1973; Rafferty, 1986; Ginsburg and McCoy, 1981).

With respect to cognitive abilities, Ginsburg and McCoy (1981) cited research findings to support that when students learn another language at the elementary level and there is good program articulation, second language students advance more rapidly than monolingual students in cognitive abilities, independent of IQ.

Regarding creativity, in the Landry (1973) and Kessler and Quinn (1980) studies, students who studied a second language in elementary school scored significantly higher on tests of divergent thinking as measured in terms of figural fluency and figural flexibility independent of age and IQ.

VI. Cultural Pluralism

Children who have studied a foreign language develop a sense of cultural pluralism, openness to and appreciation of other cultures (Carpenter and Torney; Hancock and Lipton et al.; Lambert and Tucker).

VII. Self-Concept

Children studying a foreign language have an improved self-concept and sense of achievement in school (Genesee; Holobow et al.; Masciantonio).

VIII. Previous Knowledge

Second language learning in the elementary school, especially at its beginning stages, is less dependent on previous verbal learning than are most other elements of the curriculum. This factor allows some students to succeed who have otherwise experienced repeated failure in school. In a recent study (Holobow et al. 1987) working class students did just as well in French as middle class students even though their English skills were not as good.

IX. Foreign Language and the Brain

Recent research in brain mapping reveals that young children who learned another language in infancy use the same brain circuits for both their native and the foreign language whereas adult learners rely on special brain circuits to learn another language (Hirsch, 1997). The transition is believed to take place around the age of seven or eight.

Neurobiologist Carla Shatz believes that there are windows of opportunity which open and close one by one throughout a person's life. The implication being that if you miss the window, you are playing with a handicap (Newsweek, February 1996). Obviously, learning

continues to take place throughout a person's life; however, the optimum time for learning occurs until the age of 10 to 12 when the brain of young children is believed to be most receptive (Chugani). For this reason, early language learning is most effective when it is started early on in a child's life.

Conclusion

Concerns about achievement in the "basics" are voiced by educators and parents involved with FLES programs. They assume that taking time out of the school day for foreign language may detract from achievement in other subject areas. The issue of foreign language study and achievement has been investigated repeatedly with similar results: study of a foreign language in elementary school has no negative effects on achievement in other areas. Quite the contrary, considerable evidence is available that the achievement of students in such programs equals, if not surpasses, that of their peers (Donoghue, 1968). Significantly, such data include urban, integrated school populations.

FOREIGN LANGUAGES IN THE SECONDARY SCHOOLS

I. SAT Scores

During the past several years, data from the Admissions Testing Program of the College Board definitely show a positive correlation between SAT scores and the study of foreign languages. According to Profiles, College-Bound Seniors, 1981, a publication of the Admissions Testing Program, of 922,919 seniors tested, 13.6 percent had taken no foreign language courses. For this group the mean SAT score on the verbal portion of the test was 366; on the math portion it was 409.

II. Length of Study

Students who had taken only one year of a foreign language had slightly higher SAT scores with 378 on verbal and 416 on the math. Increases for students who had taken two years of foreign language, however, were more dramatic: 417 on the verbal and 463 on the math. These scores represent increases of 14 and 13 percent, respectively, over the scores of those who had taken no foreign language.

With each additional year of language study, scores climbed higher, with 504 on the verbal and 535 on the math sections being average for students who had five or more years of foreign language study. Additional correlation were calculated for English, math, biological

sciences, physical sciences, and social studies. With the exception of students who had taken two years of biological sciences, all students achieved higher verbal and math scores the longer they studied any of these subjects.

The most interesting piece of information for us, though, is that the verbal scores of students who had taken four or five years of foreign language were higher than the verbal scores of students who had taken four or five years of any other subjects.

Data from Profiles, College-Bound Seniors, 1984 and 1990, tell essentially the same story. Again, sheer time spent taking a subject appears to relate to a better test score, and concentration on foreign languages for periods of four or more years results in the highest SAT-verbal average of any of the subject group.

(The Modern Language Journal Volume 71, Number 4, Winter 1987 "Foreign Language Study and SAT-Verbal Scores". Thomas C. Cooper)

III. ACT and Foreign Languages

A study by Olsen and Brown (1989) supports that English and mathematics performance levels of students who have studied a foreign language in high school are higher than those of students who have not. In prior research that controlled for variations in students' ability, the English and math performance levels of students who had studied a foreign language tended to be higher than those of students who had not. (Wiley; Eddy; Bastian; Timpe; Skelton; Olsen and Brown).

Further and more detailed study of interrelations among parts might reveal, as suggested by Jarvis, that the mental processing skills required to do mathematics problems are also developed by language processing and vice versa.

IV. Career Development

The Nebraska Foreign Language Frameworks (1996) states that "learning a foreign language provides a competitive edge in career choices in today's and tomorrow's world. The foreign language experience enhances cultural sensitivity and provides linguistic insights necessary for citizens in a worldwide community."

Conclusion

The often-noted positive correlation between length of foreign language study and college admission test scores does, upon closer

examination, seem to be related to something inherent in language study itself which contributes to the development of native language skill. In order for transfer of learning to occur one condition must be met: foreign language study must extend over several years. As every teacher knows, development of language skills is a long and arduous process fraught with many difficulties. The reward, improvement of English skills, ought to be a strong enough argument to convince school administrators to institute programs that will enable students to take a long sequence of a foreign language, be it French, German, Spanish, Latin or others.

Bibliography

Bastian, T.R.(1979). "An Investigation into the Effects of Second Language Learning on Achievement in English." *English Language Arts Skills in Instruction*. Urbana: Clearinghouse on Reading and Communication Skills. ERIC ED 189 646.

Begley, S. (1996). "Your Child's Brain." *Newsweek*.

Carpenter, J.A. and J.V. Torney (1974). "Beyond the Melting Pot." In Patricia Maloney Markun, ed., *Childhood and Intercultural Education: Overview and Research*. Washington, DC: Association for Childhood Education International.

Chugani, H. (1993) "Reshaping Brain for Better Future." as quoted in *Chicago Tribune*, April 15.

Cohen, P. (1995) "Understanding the Brain." *Education Update*. ASCD.

Cooper, T. (1987). "Foreign Language Study and SAT Verbal Scores." *Modern Language Journal*, Vol. 71, #4, p. 381-387.

Donoghue, M. (1968). *Foreign Language and the Elementary School Child*. Dubuque, IA: William C. Brown.

Dulay, H. and S. Krashen (1973). *Language Two*. New York: Oxford University Press.

Eddy, P. (1981). *The Effect of Foreign Language Study in High School on Verbal Ability as Measured by the Scholastic Aptitude Test - Verbal*. Washington Center for Applied Linguistics, ERIC ED 196312.

Foster, K. and C. Reeves (1989). "FLES Improves Cognitive Skills." *FLES News* 2 (3), 4-5.

Genesee, F. (1987). *Learning Through Two Languages*. Rowley, MA. Newbury House.

Gingsburg, H and McCoy I (1981). An Empirical Rationale for Foreign Language in Elementary Schools. *Modern Language Journal*, 65, 36-42.

Grittner, F. (1985). *A Guide to Curriculum Planning in Foreign Languages*. Madison, WI. Wisconsin Department of Public Instruction.

Hancock, C. and G. Lipton, et al (1976). A Study of FLES and non FLES Pupils' Attitudes Toward the French and Their Culture." *French Review*, 49.

Hirsch, J. as quoted in Winslow, R. (1997). "How Language is Stored in Brain Depends on Age." *Wall Street Journal*, July 10.

Holobow, N. and F. Genesee, et al (1987). "Effectiveness of Partial French Immersion for Children of Different Social Class and Ethnic Background." *Applied Linguistics*.

Jarvis, G.A. (1980). "The Value of Second Language Learning." *Learning a Second Language*. Ed. F.M.Grittner. Chicago: U of Chicago.

Kessler, C and Quinn, M (1980). *Bilingualism and Science Problem-Solving Ability*. Paper presented at the meeting of Teachers to Speakers of Other Languages (TESOL), San Francisco.

Krashen S. and M. Long et al. (1982). *Child-Adult Differences in Second Language Acquisition*. Rowley, MA: Newbury House.

Krashen S. and T. Terrell. (1983) *The Natural Approach to Language Acquisition in the Classroom*. Oxford: Pergamon Press.

Lambert, W. and G. R. Tucker. (1972). *Bilingual Education of Children: The St. Lambert Experiment*. Rowley, MA: Newbury House.

Landry, R. (1973). "The Enhancement of Figural Creativity Through Second Language Learning at the Elementary Level. " *Foreign Language Annals*, Vol. 7, #1.

Masciantonio, R. (1977). "Tangible Benefits of the Study of Latin: A

Review of Research." *Foreign Language Annals*, Vol. 10, #4.

Olsen, S. A. and L.K. Brown (1992). "The Relation Between High School Study of Foreign Languages and ACT English and Mathematics Performance." *ADFL Bulletin*, Vol.23, No. 3.

Rafferty, E. A. (1986). *Second Language Study and Basic Skills in Louisiana*. Baton Rouge: Louisiana Department of Education.

Rattle, E. H. (1968). "Foreign Language in the Elementary School Language Arts Program." *The French Review*, Vol. 42.

Skelton, R.B. (1957). "High School Foreign Language Study and Freshman Performance." *School and Society*, Vol.85.

Timpe, E.F. (1979). "The Effect of Foreign Language Study on ACT scores." *ADFL Bulletin* 11.2.

Wiley, P.D. (1985). "High School Foreign Language Study and College Academic Performance." *Classical Outlook* 62.2.