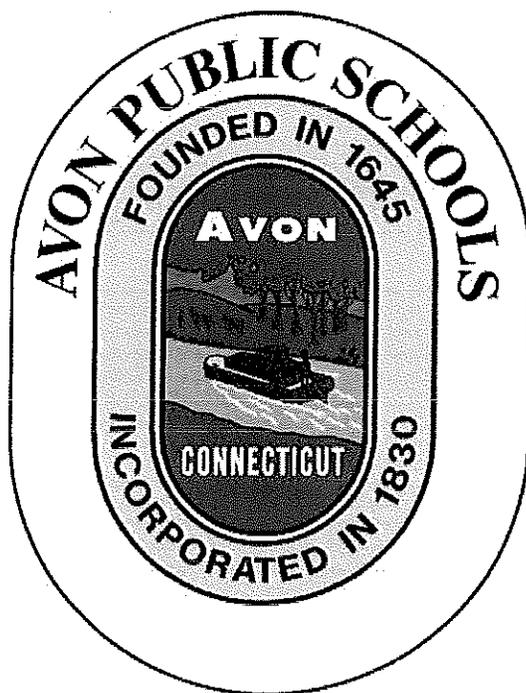


# The Avon Board of Education

Superintendent's Proposed Budget 2013-2014



World Language K – 6 Information Packet

November 20, 2012

# *Elementary World Language Information Packet*

*(Superintendent's Proposed Budget 2013-2014)*

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## Rationale for World Language Instruction

- ▶ Living in a culturally changing society and within the larger global community, students need to become proficient in other languages and to develop an awareness and understanding of other cultures.
  
- ▶ Recent brain research and the research in second language acquisition indicate that young children have a natural aptitude for language development.
  
- ▶ The young student is attitudinally more receptive to learning about other cultures and people and is developmentally at a critical period for language acquisition.
  
- ▶ The organization of the elementary school curriculum lends itself to the study of a second language as an integrated part of the curriculum.
  
- ▶ The learning and strengthening of basic skills, curriculum integration, enhanced student creativity, improved self-concept, and future career awareness are outcomes of elementary school second language programs.

(Connecticut Council of Language Teachers)

**FLES (FOREIGN LANGUAGE IN ELEMENTARY SCHOOL) PROGRAMS  
SUMMARY OF RESEARCH  
(CT STATE DEPARTMENT OF EDUCATION, NOVEMBER 2012)**

Andrade, C. et al. (1989). Two languages for all children: Expanding to low achievers and the handicapped. In K. E. Muller (Ed.), "Languages in elementary schools" (pp. 177-203). New York: The American Forum. Describes student performance in the Cincinnati Foreign Language Magnet Program. These children score well above anticipated national norms in both reading and mathematics and higher than the average of all magnet school participants, despite the fact that they represent a broad cross-section of the Cincinnati community.

Armstrong, P.W., & Rogers, J.D. (1997). Basic skills revisited: The effects of foreign language instruction on reading, math and language arts. "Learning Languages, 2"(3), 20-31. Presents a study that provides quantitative and qualitative evidence of the effect of foreign language education upon the basic skills of elementary students, with the hope that such evidence will provide information and assistance to parents and educators who are investigating the benefits of elementary school foreign language programs.

Bastian, T.R. (1980). "An investigation into the effects of second language learning on achievement in English." (pp. 6176-6177). DA, 40, 12-A, Pt 1. Boise, ID: University of Idaho. Graduating high school seniors with two or more years of foreign language study showed significant superiority in performance on achievement tests in English when compared with nonforeign language students.

Brega, E., & Newell, J.M. (1967). High-school performance of FLES and non-FLES students. "Modern Language Journal, 51," 408-411. Compares performance of two groups of 11th grade students on MLA French examination (advanced form) in listening, speaking, reading, and writing. One group of students had begun French in Grade 7, the other group had also had 80 minutes per week of FLES beginning in Grade 3. FLES students outperformed non-FLES students in every area.

Campbell, W.J. (1962). "Some effects of teaching foreign language in the elementary schools." NY Hicksville Public Schools.: Dec. (ERIC Document Reproduction Service No. ED 013 022) Contrasts performance in all school subjects of FLES (20 minutes per day) and non-FLES students, all selected to have IQ of 120 or above. Data collected over 3 years suggests that FLES has a positive effect.

Cohen, A. (1974). The Culver City Spanish immersion program: The first two years. "Modern Language Journal, 58"(3), 95-103. Demonstrates student progress in second language acquisition while maintaining par with English-speaking peers in math and other basic subjects.

Diaz, R.M. (1983). "The impact of second-language learning on the development of verbal and spatial abilities." DA, 43, 04-B, 1235. New Haven, CT: Yale University. Supports the claim that bilingualism fosters the development of verbal and spatial abilities.

Donoghue, M.R. (1981). Recent research in FLES. "Hispania, 64," 602-604. Cites and summarizes basic research in FLES.

Foster, K.M., & Reeves, C.K. (1989). FLES improves cognitive skills. "FLES News, 2"(3), 4. Describes the results of 1985 assessment of positive effects of Louisiana elementary school foreign language program upon basic skills acquisition.

Garfinkel, A. & Tabor, K.E. (1991). Elementary school foreign languages and English reading achievement: A new view of the relationship. "Foreign Language Annals, 24," 375-382. Elementary school students of average academic ability showed improved reading achievement after participation in a voluntary before- and after-school FLES program.

Horstmann, C.C. (1980). The effect of instruction in any of three second languages on the development of reading in English-speaking children. (p. 3840). DA, 40, 07-A.

Compared reading scores in Cincinnati program among French, German, and Spanish learners in Grade 2 and a control group. There were no deficiencies; German group showed a significant positive difference over control group.

Johnson, C.E., Flores, J.S., & Ellison, F.P. (1963). The effect of foreign language instruction on basic learning in elementary schools. "Modern Language Journal, 47," 8-11.

Performance on Iowa Test of Basic Skills was compared for fourth-graders receiving 20 minutes per day of audio-lingual Spanish instruction and similar students receiving no Spanish instruction. No significant loss in achievement in other subjects was found; the experimental group showed greater achievement in reading, vocabulary, and comprehension.

Landry, R.G. (1974). A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. "Modern Language Journal, 58," 10-15.

Divergent thinking ability was improved for FLES participants over non-FLES participants after 5 years of schooling, although no significant difference was found after 3 years of schooling.

Lipton, G., Rhodes, N. & Curtain, H. (Eds.). (1985). "The many faces of foreign languages in the elementary school: FLES, FLEX, and immersion." Champaign, IL: American Association of Teachers of French. (ERIC Document Reproduction Service No. ED 264 727).

Describes FLEX program: 30 minutes per week, taught by volunteers in many languages, all grades. ITBS scores for participants were higher than those for nonparticipants.

Lopata, E.W. (1963). FLES and academic achievement. "French Review, 36," 499-507.

Classes of third-grade children in New York City and suburban New York schools were taught conversational French for 15 minutes daily. After 1 year they were evaluated for French skills, and their scores on the Stanford Achievement Test were compared with scores of children who had not received French instruction. All statistically significant differences were in favor of the experimental group, and seven of eight mean differences were in favor of the experimental group. Children were judged to have pronunciation and fluency in French superior to that of high school students with the same amount of instruction.

Masciantonio, R. (1977). Tangible benefits of the study of Latin: A review of research. "Foreign Language Annals, 10," 375-382.

Examines linguistic benefits of Latin in building English vocabulary and reading skills, based on eight projects.

Mavrogenes, N.A. (1979). Latin in the elementary school: A help for reading and language arts. "Phi Delta Kappan, 60," 675-77.

Cites studies in several cities in which FLES students surpassed non-FLES students in test performances in reading and language arts. Washington study includes students in Spanish and French as well as Latin.

Mayeux, A.P., & Dunlap, J.M. (1966). "French language achievement: The effect of early language instruction on subsequent achievement." University City, MO: University City School District. (ERIC Document Reproduction Service No. ED 070 359).

Addresses achievement in further study of the same language in Grade 7 (20 minutes per day) after 3 years of French FLES. Marked positive difference in achievement.

Nespor, H.M. (1971). "The effect of foreign language learning on expressive productivity in native oral language." (p. 682). DA, 31 (02-A) University of California, Berkeley.

Foreign language learning in Grade 3 is shown to increase expressive oral productivity in pupils' native languages.

Peal, E., & Lambert, W.E. (1962). The Relationship of bilingualism to intelligence. "Psychological Monographs, 76"(27), 1-23.

Monolingual and bilingual French-English children, aged 10, were administered verbal and nonverbal intelligence tests and measures of attitudes toward the English and French communities. Bilinguals performed significantly better on both verbal and nonverbal intelligence tests.

Rafferty, E.A. (1986). "Second language study and basic skills in Louisiana." Baton Rouge, LA: Louisiana Department of Education. (ERIC Document Reproduction Service No. ED 283 360).

Third, fourth, and fifth graders studying languages showed significantly higher scores on the 1985 Basic Skills Language Arts Test than a similar group of nonparticipants. In addition, by fifth grade the math scores of language students were also higher than those of nonlanguage students.

Samuels, D.D., & Griffore, R.J. (1979). The Plattsburgh French language immersion program: Its influence on intelligence and self-esteem. "Language Learning, 29," 45-52.

Tested 6-year-olds after 1 year in French immersion with WISC and Purdue Self Concept Scale. No significant difference on Verbal IQ or PSCS; significant differences in favor of immersion students on Performance IQ, Picture Arrangement Object Assembly.

Schinke-Llano, L. (1986). "Foreign language in the elementary school: State of the art." Orlando, FL: Harcourt Brace, Jovanovich.

An examination of historical and contemporary issues surrounding FLES, emphasizing program design. Comprehensive bibliography.

Vocolo, J.M. (1967). The effects of foreign language study in the elementary school upon achievement in the same foreign language in the high school. "Modern Language Journal, 51," 463-469.

FLES students were found to have significantly better performance in listening, speaking, and writing when compared to non-FLES students at the end of an intermediate-level high school French class.

Yerxa, E. (1970). Attitude development in childhood education toward foreign people. "Journal of Education, 152"(3), 23-33.

Review of theory and research on attitude development.

## IMMERSION PROGRAMS

Barick, H.C., & Swain, M. (1975). Three-year evaluation of a large scale early grade French immersion program: The Ottawa Study. "Language Learning, 25"(1) 1-30.  
Evaluation of school performance in comparison with all-English program. Confirms positive results of previous research.

Campbell, R.N., Gray, T.C., Rhodes, N.C., & Snow, M.A. (1985). Foreign language learning in the elementary schools: A comparison of three language programs. "Modern Language Journal, 69," 45-54.  
Compares language skills of students in FLES, partial immersion and immersion programs, who had studied the language for 4 to 7 years.

Genesee, F. (1983). Bilingual education of majority-language children: The immersion experiments in review. "Applied Psycholinguistics, 4," 1-46.  
Reviews structures and research findings pertaining to a variety of program models in the U.S. and Canada. Concludes that this approach is feasible in diverse settings for diverse school populations.

Genesee, F. (1985). Second language learning through immersion: A review of U.S. programs. "Review of Educational Research, 55"(4), 541-561.  
Reviews Culver City, Montgomery County, Cincinnati, and San Diego, comparing them with Canadian immersion programs. Compares first-language development and growth in academic areas.

Genesee, F. (1986). "Learning through two languages: Studies of immersion and bilingual education." Cambridge, MA: Newbury House.  
This complete review of immersion and bilingual education integrates program data, research findings, theoretical discussions, and educational implications.

Holobow, N., Genesee, F., Lambert, W., Gastright, J., & Met, M. (1987). Effectiveness of partial French immersion for children from different social class and ethnic backgrounds. "Applied Psycholinguistics, 8," 137-152.  
Reports the results of a 4-year study of Cincinnati immersion programs. Researchers conclude that immersion students score comparably with students in English-only programs in all basic skills areas; working-class immersion students, both black and white, scored as well as middle-class students on measures of their listening and oral performances in French.

Makin, L. (1996). Bilingualism in early childhood education. "Learning Languages, 1"(3), 24-27.  
Designed to stimulate increased dialogue between early childhood educators in the U.S. and Australia, the issues discussed are similar in both countries and much of the research impacting upon educational programs has international recognition.

Pawley, C. (1985). How bilingual are French immersion students? "Canadian Modern Language Review, 41," 865-876.  
Describes and compares performance of early- and late-immersion Carleton and Ottawa students in Grades 10-12 on tests of French listening, speaking, reading, and writing. Also compares results with those of francophone students. Range is wide, but performance is very respectable.

**WORLD LANGUAGE INSTRUCTION  
SUMMARY OF RESEARCH  
(AMERICAN COUNCIL ON THE TEACHING FOREIGN LANGUAGES, NOVEMBER 2012)**

**Second language study benefits academic progress in other subjects**

Applying current standard practices of foreign language instruction ("Five Cs of Communication, Culture, Connections with other disciplines, Comparisons with students' native languages and cultures, and use of the foreign language in Communities outside the classroom") reinforces English language course content of other coursework. (Curtain & Dahlberg 2004)

Learning another language can enhance knowledge of English structure and vocabulary (Curtain & Dahlberg, 2004). A study of 13,200 third and fifth graders in Louisiana public schools revealed that, regardless of race, gender, or academic level, children taking foreign language classes did better on the English section of the Louisiana Basic Skills Test than those who did not. (Dumas 1999)

Strong evidence shows that time spent on foreign language study strongly reinforces the core subject areas of reading, English language literacy, social studies and math. Foreign language learners consistently outperform control groups in core subject areas on standardized tests, often significantly. (Armstrong & Rogers 1997; Saunders 1998; Masciantonio 1977; Rafferty 1986; Andrade 1989; Kretschmer & Kretschmer 1989)

One study found students scored significantly higher in math and language arts after one semester of foreign language study 90 minutes per week. (Armstrong 1997)

Foreign language learners consistently outperform control groups in core subject areas on standardized tests often significantly. (Armstrong & Rogers 1997, Saunders 1998, Masciantonio 1977, Rafferty 1986, Andrade, Kretschmer & Kretschmer 1989)

Students who started kindergarten in the first Kansas City foreign language magnet schools in 1988 had surpassed national averages in all subjects by the time they reached fifth grade. These foreign language students performed especially well in mathematics. (Eaton 1994)

Foreign language students within an urban magnet program scored well above anticipated national norms in both reading and mathematics and higher than the average of all magnet school participants, despite the fact that they represent a broad cross-section of the local community. (Andrade 1989)

- Mastering the vocabulary of a second language enhances student comprehension and abilities in reading, writing, mathematics and other subjects. (Saville-Troike 1984)
- Bilingualism fosters the development of verbal and spatial abilities. (Diaz 1983)
- Students learning a second language in elementary school surpassed those who were not in English reading and language arts tests. (Mavrogenes 1979).
- Early second language study promotes achievement in English vocabulary and reading skills. (Masciantonio 1977)
- Foreign language learners consistently score higher than their non-language-learning peers in measures of English vocabulary, particularly when the language studied has Latin roots. (Masciantonio 1977)

### **Second language study narrows achievement gaps**

Children of color, children from economically disadvantaged backgrounds, and English Language Learners make the greatest proportionate achievement gains from foreign language study. Early foreign language study is less dependent on previous verbal learning than most other elements of the elementary school curriculum and this allows some students to succeed who have otherwise experienced repeated failure in school. (Curtain & Dahlberg 2004)

A study of 13,200 third and fifth graders in Louisiana public schools revealed that, regardless of race, gender or academic level, children taking foreign language classes did better on the English section of the Louisiana Basic Skills Test than those who did not. (Dumas 1999)

Foreign language study can help to alter the trajectory for children of average intelligence and narrow the achievement gap. (Garfinkel & Tabor 1991)

Cincinnati's Foreign Language Magnet Program has a student population that is 57% African American and 43% Caucasian, with 52% of the total receiving free and reduced lunch. Achievement for these children far exceeds national norms in both reading and math and participants in the foreign language magnet program on average score higher than the average of all Cincinnati's many magnet programs. (Andrade, Kretschmer & Kretschmer 1989)

In a four year study by McGill University, working class students did just as well in foreign language as middle-class students even though their English skills were not as good. (Holobow 1988)

### **Second language study benefits basic skills development**

A study of 13,200 third and fifth graders in Louisiana public schools revealed that, regardless of race, gender or academic level, children taking foreign language classes did better on the English section of the Louisiana Basic Skills Test than those who did not. (Dumas 1999)

There's a high positive correlation between foreign language study and improved reading scores for children of average and below average intelligence. (Garfinkel & Tabor 1991)

Foreign language learners have better listening skills and sharper memories than their monolingual peers. (Lapkin, et al 1990, Ratte 1968)

## **Second language study benefits higher order, abstract and creative thinking**

Several studies indicate that individuals who learn a second language are more creative and better at solving complex problems than those who do not. (Bamford & Mizokawa, 1991)

Language learners show greater cognitive flexibility, better problem solving and higher order thinking skills. (Hakuta 1986)

Research suggests that foreign language study “enhances children’s understanding of how language itself works and their ability to manipulate language in the service of thinking and problem solving.” (Cummins 1981)

Early language study results in greater skills in divergent thinking and figural creativity. (Landry 1973)

## **Early second language learning enriches and enhances cognitive development**

“The power to learn a language is so great in the young child that it doesn’t seem to matter how many languages you seem to throw their way....They can learn as many spoken languages as you can allow them to hear systematically and regularly at the same time. Children just have this capacity. Their brain is ripe to do this...there doesn’t seem to be any detriment to....develop[ing] several languages at the same time” according to Dr. Susan Curtiss, UCLA Linguistics professor. (Curtain & Dahlberg 2004)

“The learning experiences of a child determine which [neural] connections are developed and which no longer function. That means what is easy and natural for a child – learning a language – can become hard work for an older learner.” (Curtain & Dahlberg 2004)

Research indicates that children who are exposed to a foreign language at a young age achieve higher levels of cognitive development at an earlier age. (Bialystok & Hakuta 1994; Fuchsien 1989)

Language learners show greater cognitive flexibility, better problem solving and higher order thinking skills. (Hakuta 1986)

People who are competent in more than one language consistently outscore monolinguals on tests of verbal and nonverbal intelligence. (Bruck, Lambert, Tucker 1974, Hakuta 1986, Weatherford 1986)

Foreign language learners have better listening skills and sharper memories than their monolingual peers. (Lapkin, et al 1990, Ratte 1968)

## **Second language study enhances a student's sense of achievement**

Foreign language study is area where children not accustomed to achievement in school are able to excel. The resulting benefit to self-image, self-esteem and satisfaction with school experience are enormous. Evidence from several studies study show language students to have a significantly higher self-concept than do non-language students. (Masciantonio 1977, Saunders 1998, Andrade, et al. 1989)

Language study is an area in which ELL students can be successful in front of their peers, since bilingual children learn additional languages more quickly and efficiently than monolingual children. (Cummins 1990)

Offering foreign language study demonstrates to ELL students and their families that languages other than English - and by extension cultures other than the mainstream - are valued. Research suggests that foreign language study "enhances children's understanding of how language itself works. It also increases their ability to manipulate language in the service of thinking and problem solving."  
(Cummins 1981)

## **Second language students score higher on standardized tests**

Students of foreign languages tend to score higher on standardized tests. Results from the Scholastic Aptitude Test (SAT) show that students who had studied a foreign language for 4 or more years outscored other students on the verbal and math portions of the test. (College Board 2003)

Students who completed at least four years of foreign-language study scored more than 100 points higher on each section of the SAT than students who took a half year or less. (College Board 2004)

Students who studied four or five years of a foreign language scored higher on the verbal section of the 2004 SAT than students who had studied any other subject for the same number of years. (Cooper 1987; Eddy 1981)

Other studies correlate bilingual proficiency with higher scores on standardized tests and tests of both verbal and nonverbal intelligence (Caldas & Boudreaux, 1999; Hakuta, 1986; Thomas, Collier, & Abbott, 1993)

Foreign language learners consistently outperform control groups in core subject areas on standardized tests often significantly. (Armstrong & Rogers 1997, Saunders 1998, Masciantonio 1977, Rafferty 1986, Andrade, Kretschmer & Kretschmer 1989)

People who are competent in more than one language consistently outscore monolinguals on tests of verbal and nonverbal intelligence. (Bruck, Lambert, Tucker 1974, Hakuta 1986, Weatherford 1986)

Third-graders who had received 15 minutes of conversational French lessons daily for a year had statistically higher Stanford Achievement Test scores than their peers who had not received French instruction. (Lopata 1963)

## **Second language study promotes cultural awareness and competency**

In an age of global interdependence and an increasingly multicultural and multiethnic society, early foreign language study gives children unique insight into other cultures and builds their cultural competency skills in a way that no other discipline is able to do. "The age of ten is a crucial time in the development of attitudes toward nations and groups perceived as 'other' according to the research of Piaget, Lambert and others. At age 10, children are in the process of moving from egocentricity to reciprocity and information received before age 10 is eagerly received." (Curtain & Dahlberg 2004)

"...(E)xposure to a foreign language serves as a means of helping children to intercultural competence. The awareness of a global community can be enhanced when children have the opportunity to experience involvement with another culture through a foreign language." (Curtain & Dahlberg 2004)

"The positive impact of cultural information is significantly enhanced when that information is experienced through foreign language and accompanied by experiences in culturally authentic situations." (Curtain & Dahlberg 2004)

Experiences in learning a second language and learning another culture will facilitate teachers' interactions with their students' learning experience. Competent teachers understand that positive self-concept and positive identification with one's culture is the basis for academic success. (Lemberger 1990)

Foreign language learners are more tolerant of the differences among people. (Carpenter & Torney 1974)

## **Second language study found to improve chances of college acceptance, achievement and attainment**

Students who were in “rigorous” programs in high school—that included three years of foreign language study—were likely to earn better grades in college and less likely to drop out. (Horn & Kojaku 2001)

Graduating high school seniors with two or more years of foreign language study showed significant superiority in performance on achievement tests in English when compared with nonforeign language students. (Bastian 1980)

## **Second language study enhances career opportunities**

Studying a foreign language helps students understand English grammar better and improves their overall communication and problem-solving skills. Beyond the intellectual benefits, knowledge of a foreign language facilitates travel, enhances career opportunities, and enables one to learn more about different peoples and cultures. (National Research Council 2007)

In a survey of 581 alumni of The American Graduate School of International Management in Glendale, Arizona, most respondents said they had gained a competitive advantage from their knowledge of foreign languages and other cultures. They said that not only was language study often a critical factor in hiring decisions and in enhancing their career paths, it also provided personal fulfillment, mental discipline, and cultural enlightenment. (Grosse 2004)

In recent years, the U.S. government has expressed a need for fluent speakers of languages other than English, particularly in less commonly taught languages such as Arabic and Chinese (U.S. General Accounting Office 2002).

Students of foreign languages may have better career opportunities. (Carreira & Armengol 2001)

## **Second language study benefits understanding and security in community and society**

Research suggests that attitudes about other groups and peoples are formed by the age of ten and are often shaped between the ages of four and eight. Learning a language at a young age helps connect a child with another culture while they are still open-minded and have not yet begun to restrict their views of others whom they perceive to be different. (Curtain & Pesola 1988)

The benefits of foreign language study last throughout one’s lifetime. Recent research indicates that knowing two languages may help stave off age-related mental decline. Researchers compared monolingual to bilingual adults in a test of cognitive function, and bilingualism seemed to offer a protective benefit. (Bialystok 2004)

The benefits to society are many. Americans fluent in other languages improve global communication, enhance our economic competitiveness abroad, and maintain our political and security interests. (Center for Applied Linguistics 2004)

## Barriers to second language study

"...Not only are American secondary school students studying foreign languages too seldom, and with too little intensity, they are failing to study in sufficient numbers many of the languages essential to meeting the challenges of a new era. (Committee for Economic Development 2006)

"...Although approximately one million students in the United States study French, a language spoken by 70 million people worldwide, fewer than 40,000 American students

Opportunities to learn about other languages and cultures are severely lacking in many low-income, minority, and urban school districts. Foreign language instruction is offered in only one-quarter of urban public schools compared with about two-thirds of suburban private schools.

At the middle-school level, 78 percent of private (non-parochial) schools report that more than half of their students study foreign languages, compared with 51 percent of students in public middle schools.

In 2003, 29 percent of public school principals in heavily minority school districts anticipated future decreases in instructional time for foreign languages. African-American, Hispanic, and American Indian students earn fewer credits in foreign languages than their white peers. Increasing access to and enrollments in foreign language courses in elementary and secondary schools may not, by themselves, be sufficient to improve foreign language proficiency. The average high school student receives about 150 hours of language instruction per year.

(Greater language proficiency can be achieved with a longer amount of time on task. (Curtain & Pesola 1988)) Experience has shown that 300 hours of instruction spread over two years is woefully inadequate for high-school students to develop any usable level of proficiency. Elementary-school students, who receive only 30-60 minutes of instruction per week, are even more disadvantaged. Schools may also need to change the way languages are taught. Time on task is important, which may mean greater use of immersion programs and content-based language learning, where subject matter drawn from the school curriculum is delivered in a foreign language. In 2002, only 29 states offered language-immersion programs..." —*The Importance of International Studies and Foreign Language Education for U.S. Economic and National Security* (Committee for Economic Development 2006)

## REFERENCES FOR COGNITIVE QUESTION

### THERE IS EVIDENCE THAT EARLY LANGUAGE LEARNING IMPROVES COGNITIVE ABILITIES.

**Foster, K. M., & Reeves, C. K. (1989). Foreign Language in the Elementary School (FLES) improves cognitive skills. *FLES News*, 2(3), 4.**

This study looks at the effects of an elementary school foreign language program on basic skills by looking at the relationship between months of elementary foreign language instruction in French and scores on instruments designed to measure cognitive and metacognitive processes. The study included 67 sixth-grade students who were divided into four groups that differed by lengths of time in the foreign language program. There was a control group of 25 students who had no French instruction and three groups of students who had participated in the program for different lengths of time (6.5 months, 15.5 months, and 24.5 months). The students who did receive foreign language instruction had received 30 minutes of French instruction daily after 30 minutes of basal reading in English. The control group received an additional 30 minutes of reading instruction in place of foreign language instruction. The results of the analysis showed that the groups who received foreign language instruction scored significantly higher in three areas (evaluation on the Ross test, total score of all cognitive functions on Ross test, and total score on Butterfly and Moths test) than the control group. **In particular, the students who had received foreign language instruction scored higher on tasks involving evaluation which is the highest cognitive skill according to Bloom's taxonomy. The linear trend analysis showed that the students who had studied French the longest performed the best.**

**Landry, R. G. (1973). The enhancement of figural creativity through second language learning at the elementary school level. *Foreign Language Annals*, 7(1), 111-115. from Linguistics and Language Behavior Abstracts database.**

The main hypothesis of this study is that the experience of learning a second language at the elementary school level is positively correlated to divergent thinking in figural tasks. This study is concerned with flexibility in thinking through experience with a foreign language. Comparisons are made between second language learners and single language learners. **The second language learners score significantly higher than do the monolingual students. Second language learning appears, therefore, not only to provide children with the ability to depart from the traditional approaches to a problem, but also to supply them with possible rich resources for new and different ideas.**

**Bamford, K. W., & Mizokawa, D. T. (1991). Additive-bilingual (immersion) education: Cognitive and language development. *Language Learning*, 41(3), 413-429. from ERIC database.**

Examination of a second grade additive-bilingual (Spanish-immersion) classroom, compared to a monolingual classroom for nonverbal problem-solving and native-language development, found significant differences in problem solving in favor of the bilingual class and no significant differences in native-language development.

**Barik, H. C., & Swain, M. (1976). A longitudinal study of bilingual and cognitive development. *International Journal of Psychology*, 11(4), 251-263. from PsycINFO database.**

Presents findings of a study of IQ data collected over a 5-yr period (kindergarten to Grade 4) on pupils in a French immersion program (anglophone pupils receiving all instruction in French except English language arts) and pupils in the regular English program. Although year-by-year results may fail to show IQ differences between the 2 groups, repeated measures analysis indicates that the

immersion group had a higher IQ measure over the 5-yr period. Supportive of those studies is a further analysis on the data of immersion students classified as "high" vs "low" French achievers. High achievers obtained significantly higher IQ measures and subtest scores than low achievers, even when scores were adjusted for initial IQ and age differences. F

**Samuels, D. D., & Griffone, R. J. (1979). The Plattsburgh french language immersion program: Its influence on intelligence and self-esteem. *Language Learning*, 29(1), 45-52. from Linguistics and Language Behavior Abstracts database.**

This study examined the effects of a year's attendance in a French Language Immersion Program (FLIP) on children's verbal & performance sections of the Wechsler Intelligence Scale for Children (WISC) & self-esteem, measured by the Purdue Self Concept Scale (PSCS). Eighteen 6-year-olds attended the program, while 13 6-year-olds constituted a control group which attended a regular English program. Analyses of data showed that differences between the FLIP & English control groups at the end of the school year were not significant for Verbal IQ or PSCS. **Significant differences were found between groups on overall Performance IQ, Picture Arrangement, & Object Assembly. The increments in Performance IQ in the FLIP group are consistent with previously reported data suggesting that bilinguals have greater cognitive flexibility than monolinguals.**

**FIND OUT MORE ABOUT THE BENEFITS OF LANGUAGE LEARNING BY INVESTIGATING THESE RESOURCES.**

**Met, M. (1991). Elementary school foreign languages: What research can and cannot tell us. In E. S. Silber (Ed.), *Critical issues in foreign language instruction* (pp. 63-79). New York: Garland Publishing, Inc.**

Examined are some issues in elementary school foreign-language instruction, including concerns about when to begin such instruction, which language(s) to teach, learning methods, & measures of competence among children. The cognitive, academic, & attitudinal benefits of early language learning are discussed, along with factors that may affect the beginning grade level (resources, etc). In general it is asserted that the earlier the language is introduced, the more rapidly children stand to reap the benefits. FLES & FLEX instruction programs are considered as models, & content-based instruction is cited as most effectively transmitting the communicative & semantic nature of a foreign language to children. It is further suggested that both immersion & FLES learning programs may provide the best vehicles for producing research data on the effectiveness of primary school foreign-language study. 39 References. M. Chamberlain

**Stewart, J. H. (2005). Foreign language study in elementary schools: Benefits and implications for achievement in reading and math. *Early Childhood Education Journal*, 33(1), 11-16. from PsycINFO database.**

Educators and policy makers in many countries have been expressing concern about how to improve students' achievement in reading and math. This article explores and proposes a solution: introduce or increase foreign language study in the elementary schools. Research has shown that foreign language study in the early elementary years improves cognitive abilities, positively influences achievement in other disciplines, and results in higher achievement test scores in reading and math. Successful foreign language programs for elementary schools include immersion, FLES, and FLEX programs. (PsycINFO Database Record (c) 2006 APA, all rights reserved) (journal abstract)

**Weatherford, H. J. (1986). *Personal benefits of foreign language study*. ERIC digest. U.S.; District of Columbia:**

There is an increasing awareness of the usefulness of foreign language training in a number of seemingly diverse areas. Foreign language students develop not only technical skills related to language use but also tangible advantages in the job market because of their increased communication skills. Mastery of languages also enhances the enjoyment of travel abroad and reduces frustration and isolation during travel in other countries. Increased international business opportunities have made meaningful communication and understanding between cultures more valuable, and the individual's ability to understand and empathize across cultural lines is increased with language study. In addition, research suggests that foreign language study enhances both cognitive development and academic achievement. While it is certain that people familiar with more than one language and culture can communicate more effectively with people of other countries and cultures, it is also possible that through learning another language and culture, people become more effective problem-solvers, closer to achieving solutions to pressing social problems because of an increased awareness of a wider set of options. (MSE)

### **THERE IS EVIDENCE BILINGUALISM CORRELATES WITH INCREASED COGNITIVE DEVELOPMENT AND ABILITIES.**

**Ben-Zeev, S. (1977). The influence of bilingualism on cognitive strategy and cognitive development. *Child Development*, 48(3), 1009-1018. from PsycINFO database.**

Hypothesized that mutual interference between a bilingual child's 2 languages forces the child to develop particular coping strategies which in some ways accelerate cognitive development. The sample consisted of 96 5-8 yr olds: 2 groups of Hebrew-English bilinguals, one group tested in the US and the other group tested in Israel; and 2 groups of monolinguals, with those tested in the US speaking only English and those tested in Israel speaking only Hebrew. In all groups parent occupation and education level were similarly high. **In spite of lower vocabulary level, bilinguals showed more advanced processing of verbal material, more discriminating perceptual distinctions, more propensity to search for structure in perceptual situations, and more capacity to reorganize their perceptions in response to feedback.**

**Ben-Zeev, S. (1977). *The effect of bilingualism in children from Spanish-English low economic neighborhoods on cognitive development and cognitive strategy. Working papers on bilingualism, no. 14.* Bilingual Education Project.**

A previous study found that middle-class Hebrew-English bilingual children were characterized by distinctive perceptual strategies and more advanced processing in certain verbal tasks, as compared to similar monolinguals. The present study tested whether similar strategies and response patterns will appear when the children involved are from different language groups and from relatively disadvantaged inner-city neighborhoods. **The results showed that Spanish-English bilingual children manifest similar strategies to those found in the previous study (distinctive perceptual strategies and more advanced processing in certain verbal tasks), although with some attenuation.** The strategies apply to nonverbal as well as verbal material. These results appeared in spite of deficiencies in vocabulary and syntax usage for the Spanish-English bilinguals relative to their control group of similar ethnic and social background.

Duncan, S. E., & De AvilaEdward A. (1979). Bilingualism and cognition: Some recent findings. *NABE: The Journal for the National Association for Bilingual Education*, 4(1), 15-50. from ERIC database.

Hispanic children in grades 1 and 3 were tested to examine the relationship between degree of bilingualism in English and Spanish, intellectual development level, and performance on two tests of cognitive-perceptual functioning or field dependence /independence. **A positive, significant relationship was found between relative language proficiency and cognitive perceptual performance.**

Fardeau, O. (1993). Franco-italian bilingualism in early childhood and cognitive development. [Bilinguisme precoce franco-italien et developpement cognitif] // *Forneri*, 7(2), 83-99. from Linguistics and Language Behavior Abstracts database.

Investigated is the relationship between bilingualism in children and cognitive development. French-Italian bilingual children (aged 7-11) were categorized into four groups: (1) equally fluent in both languages, acquired at home; (2) equally fluent in both languages, acquired scholastically; (3) dominant in French; & (4) dominant in Italian. A control group of monolingual Italian children is identified for comparison with the results. A series of cognitive tests was administered to the students and to the control group. **It is concluded that bilingualism in early childhood exerts a positive effect on the formation of cognitive processes in children.**

Ginsburg, H. J., & McCoy, I.H. (1981). An empirical rationale for foreign languages in elementary schools. *Modern Language Journal*, 65(1), 36-42. from ERIC database.

Presents case promoting foreign languages in elementary schools using study conducted to explore relationships between bilingual and cognitive abilities of Mexican American children. **Favors additive over subtractive bilingualism.**

Hakuta, K. (1985). *Cognitive development in bilingual instruction*. U.S.; Virginia:

Theory and research on bilingualism and its relationship to cognitive development have provided mixed results, especially in relation to the value of United States bilingual education programs. Little of the existing research on bilingualism is generalizable to U.S. minority language groups. **However, one study of children in a bilingual program designed to see if intellectual abilities are related to the student's degree of bilingualism rather than to compare bilingual and monolingual children found that a positive relation exists between bilingualism and various abilities, such as the ability to think abstractly about language and to think nonverbally.** In addition, the correlation between the students' abilities in the two languages developed in the bilingual education program became stronger in the course of the program, supporting the idea of the interdependence of the languages of the bilingual.

Liedtke, W. W., & Nelson, L. D. (1968). Concept formation and bilingualism. *Alberta Journal of Educational Research*, 14(4), 225-232. from PsycINFO database.

Two samples of Grade 1 pupils, 50 monolingual and 50 bilingual were tested on a specially constructed Concepts of Linear Measurement Test based on Piaget's test items. The bilingual sample proved to be significantly superior to the monolingual sample on the concept formation test.

Ricciardelli, L. A. (1993). An investigation of the cognitive development of Italian-English bilinguals and Italian monolinguals from Rome. *Journal of Multilingual and Multicultural Development*, 14(4), 345-346. from Linguistics and Language Behavior Abstracts database.

The cognitive development of Italian-English bilingual & Italian monolingual children (aged 5-6) was studied based on measures of metalinguistic awareness, creativity, nonverbal abilities, & reading achievement. Following proficiency testing in both languages, students were assigned to groups of high & low Italian proficiency & high & low English proficiency, producing six groups for comparison. **Results of comparison of performance on the measures of cognitive development indicated that students who demonstrated high proficiency in both English & Italian achieved higher scores on the creativity, metalinguistic awareness, & reading achievement tests.**

Rodriguez, Y. G. (. (1992). The effects of bilingualism on cognitive development. (EdD, ProQuest Information & Learning/Temple University). *Dissertation Abstracts International*, 53 (4-A), 1104.

It was the primary purpose of this study to investigate the effects of bilingualism on the cognitive development and linguistic performance of children at various ages living in the same cultural environment. It also studied the relationship between formal operational thought and a prerequisite cognitive style as typified by field independence/field dependence for both bilingual and monolingual subjects. The bilingual subjects were tested for both language dominance and language proficiency. To investigate the interrelationships between bilingualism and cognitive function, it was necessary to include both verbal and non-verbal tests of cognition. No significant differences in performance could be attributed to lingualism, grade, or age with the exception of language proficiency correlated with cognitive level on analytical reasoning. The childrens' overall cognitive level indicated some justification for the theoretical relationship between verbal and non-verbal measures of abstract thinking. **The bilingual children used higher order rules more frequently than the monolingual children. The evidence seems to suggest that bilingualism may scaffold concept formation and general mental flexibility.**

### THERE IS A CORRELATION BETWEEN BILINGUALISM AND THE OFFSET OF AGE-RELATED COGNITIVE LOSSES.

Bialystok, E., Craik, F. I. M., Klein, R., & Viswanathan, M. (2004). Bilingualism, aging, and cognitive control: Evidence from the simon task. *Psychology and Aging*, 19(2), 290-303. from PsycINFO database.

Previous work has shown that bilingualism is associated with more effective controlled processing in children; the assumption is that the constant management of 2 competing languages enhances executive functions (E. Bialystok, 2001). The present research attempted to determine whether this bilingual advantage persists for adults and whether bilingualism attenuates the negative effects of aging on cognitive control in older adults. Three studies are reported that compared the performance of monolingual and bilingual middle-aged and older adults on the Simon task. **Bilingualism was associated with smaller Simon effect costs for both age groups; bilingual participants also responded more rapidly to conditions that placed greater demands on working memory. In all cases the bilingual advantage was greater for older participants. It appears, therefore, that controlled processing is carried out more effectively by bilinguals and that bilingualism helps to offset age-related losses in certain executive processes.**

## THERE IS A CORRELATION BETWEEN BILINGUALISM AND ATTENTIONAL CONTROL ON COGNITIVE TASKS.

Bialystok, E. (1999). Cognitive complexity and attentional control in the bilingual mind. *Child Development*, 70(3), 636-644. from PsycINFO database.

Investigates whether the bilingual advantage in control (selective attention) can be found in a nonverbal task, the dimensional change card sort, used by P. D. Zelazo and D. Frye (e.g., 1997) to assess Cognitive Complexity and Control (CCC). The author contends this problem contains misleading information characteristic of high-control tasks but minimal demands for analysis. 60 preschool children, half of whom were bilingual, were divided into a group of younger (mean age 4.2 yrs) and older (mean age 5.4 yrs) children. All the children were given a test of English proficiency (PPVT-R; L. M. Dunn and L. M. Dunn, 1981) and working memory (Visually-Cued Recall Task) to assure comparability of the groups and then administered the dimensional change card sort task and the moving word task. **The bilingual children were more advanced than the monolinguals in the solving of experimental problems requiring high levels of control. It is concluded that these results demonstrate the role of attentional control in both these tasks.**

## THERE IS A CORRELATION BETWEEN BILINGUALISM AND INTELLIGENCE.

Peal, E., & Lambert, W. E. (1962). The relation of bilingualism to intelligence. *Psychological Monographs*, 76(27, Whole No. 546), 23. from PsycINFO database.

This study utilizing a group of monolingual and a group of bilingual 10-year old children obtained from 6 Montreal French schools were given verbal and nonverbal intelligence tests as well as measures of attitudes to the English and French communities. **It is interesting to note that this study contrary to others found that bilinguals performed significantly better than their monolingual controls both on the verbal and the nonverbal intelligence tests.** Factor analysis supported the hypothesis that the structures of intellect for the 2 groups differed with the bilingual group possessing a more diversified set of mental abilities. **Attitude studies also appear to give the bilinguals a more favorable attitude, than their monolingual comparable peers, toward the English-Canadians and less toward the French-Canadians.**

## THERE IS A CORRELATION BETWEEN BILINGUALISM AND METALINGUISTIC SKILLS.

Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24(4), 560-567. from PsycINFO database.

A framework for relating degree of bilingualism to aspects of linguistic awareness is presented in which metalinguistic tasks are described in terms of their demands for analysis of knowledge or control of processing. Two studies are reported in which children differing in their level of bilingualism were given metalinguistic problems to solve that made demands on either analysis or control. **The hypotheses were that all bilingual children would perform better than monolingual children on all metalinguistic tasks requiring high levels of control of processing and that fully bilingual children would perform better than partially bilingual children on tasks requiring high levels of analysis of knowledge. The results were largely consistent with these predictions.**

**Galambos, S. J., & Goldin-Meadow, S. (1990). The effects of learning two languages on levels of metalinguistic awareness. *Cognition*, 34(1), 1-56. from PsycINFO database.**

Observed the development of metalinguistic awareness and tested the bilingual hypothesis, by comparing metalinguistic skills in 32 Spanish-speaking and 32 English-speaking monolinguals and in 32 Spanish-English bilinguals aged 4 yrs 5 mo to 8 yrs. The Spanish and English metalinguistic tests each contained 15 different ungrammatical constructions and 15 grammatically correct "fillers." For each item, the children were asked in the appropriate language to note whether the construction was correct or incorrect, to correct the errors they noted, and to explain why those errors were wrong. **Data suggest that the experience of learning 2 languages hastens the development of certain metalinguistic skills in young children but does not alter the course of that development.**

**Mohanty, A. K. (1992). Bilingualism and cognitive development of kond tribal children: Studies on metalinguistic hypothesis. *Pharmacopsychocologia.Special Issue: Environmental Toxicology and Social Ecology*, 5(1-2), 57-66. from PsycINFO database.**

Bilinguals' superiority over unilinguals on cognitive, linguistic, and academic achievement measures has been explained in terms of a metalinguistic hypothesis that suggests that use of 2 or more languages endows the language users with special awareness of objective properties of language and enables them to analyze linguistic input more effectively. A series of studies compared unilingual and balanced bilingual Kond children to investigate the metalinguistic hypothesis. **These studies show that the bilinguals outperform the unilinguals on a number of cognitive, linguistic, and metalinguistic tasks, even when the differences in intelligence are controlled.** However, a study with unschooled bilingual and unilingual children showed no significant differences in metalinguistic skills. The metalinguistic hypothesis of bilinguals' superiority in cognition may need to be reexamined in the context of the effect of schooling on metalinguistic processes.

**Pattnaik, K., & Mohanty, A. K. (1984). Relationship between metalinguistics and cognitive development of bilingual and unilingual tribal children. *Psycho-Lingua*, 14(1), 63-70. from PsycINFO database.**

Investigated the relationship between metalinguistic and cognitive ability of 120 bilingual and unilingual children who were 6, 8, and 10 yrs of age. Metalinguistic ability was determined from students' abilities to perceive rhymes in language, judge the appropriateness of corrections of others' speech, define words, substitute symbols, understand arbitrary language, and create words. Cognitive abilities were measured with Piagetian conservation tasks and the Progressive Matrices Test. Results suggest that bilingualism enhances the metalinguistic ability of children but does not improve their cognitive abilities because bilinguals are capable of switching from one linguistic code to the other. **It is therefore contended that metalinguistic abilities constitute a set of abilities independent from cognitive abilities and that the better performance of bilinguals is due to their ability to reflect on language regardless of their cognitive development.**

### **THERE IS A CORRELATION BETWEEN BILINGUALISM AND MEMORY SKILLS.**

**Kormi-Nouri, R., Moniri, S., & Nilsson, L. (2003). Episodic and semantic memory in bilingual and monolingual children. *Scandinavian Journal of Psychology*, 44(1), 47-54. from PsycINFO database.**

Although bilinguality has been reported to confer advantages upon children with respect to various cognitive abilities, much less is known about the relation between memory and bilinguality. In this

study, 60 (30 girls and 30 boys) bilingual and 60 (30 girls and 30 boys) monolingual children in three age groups (ages 7.9-9.4, 9.7-11.4 and 11.7-13.3 yrs) were compared on episodic memory and semantic memory tasks. Episodic memory was assessed using subject-performed tasks (with real or imaginary objects) and verbal tasks, with retrieval by both free recall and cued recall. Semantic memory was assessed by word fluency tests. **Positive effects of bilingualism were found on both episodic memory and semantic memory at all age levels.** These findings suggest that bilingual children integrate and/or organize the information of two languages and so bilingualism creates advantages in terms of cognitive abilities (including memory).

### THERE IS A CORRELATION BETWEEN BILINGUALISM AND PROBLEM SOLVING ABILITY.

**Stephens, Mary Ann Advisor: Esquivel, Giselle B. (1997). *Bilingualism, creativity, and social problem-solving.* (PhD, Fordham University).**

The present study investigated the effects of bilingualism on the creativity and social problem-solving skills of 84 Hispanic children from Spanish-speaking homes. The subjects were students from a small city school district in the New York metropolitan area. Only students demonstrating high levels of proficiency (60% or higher on the Language Assessment Battery) were considered to be proficient in the language being assessed. Students who demonstrated proficiency in both Spanish and English were considered 'bilingual' for the purposes of the study. Those meeting the criterion in only one language were considered to be 'monolingual.' The Torrance Test of Creative Thinking was administered as the measure of creativity, and the Preschool Interpersonal Problem Solving Scale was used to measure social problem-solving abilities. The Ravens Progressive Matrices were used to measure general cognitive ability. General cognitive ability was used as a covariate in the statistical analyses. **The results indicated that the bilingual children outperformed their monolingual counterparts in the area of social problem solving, but not in the area of creativity.** The positive relationship seen between bilingualism and social problem solving further strengthens the research in the area of the positive advantages of bilingualism.

### THERE IS A CORRELATION BETWEEN BILINGUALISM AND IMPROVED VERBAL AND SPATIAL ABILITIES.

**DIAZ, R. M. (1982). THE IMPACT OF SECOND-LANGUAGE LEARNING ON THE DEVELOPMENT OF VERBAL AND SPATIAL ABILITIES.** (PhD, Yale University).

The present study investigated the development of verbal and spatial abilities over time within a group of Spanish(L1)-English(L2) bilingual children currently attending Kindergarten and First-grade bilingual education programs. The study was designed in response to methodological gaps in current research on bilinguals' cognitive development; in particular, the study examined the cognitive effects of bilingualism on children who are just beginning to learn a second language and proposed a measure of degree of bilingualism that effectively controls for basic ability in the dominant language. **The results firmly supported the claim that bilingualism fosters the development of verbal and spatial abilities.** The relationship between degree of bilingualism and cognitive abilities was particularly strong for children of low second-language proficiency. This pattern of results questioned the validity of Cummins' threshold hypothesis and suggested a new, alternative threshold hypothesis. The new (Diaz) threshold hypothesis states that variability in second-language proficiency would be related to variability in cognitive measures only before a certain threshold of proficiency in the second language is attained. Two different sets of statistical analyses gave support to a cause-effect model

where degree of bilingualism is the causal factor affecting cognitive abilities. An experimental study examined the construct of cognitive flexibility and provided some support for the claim that the nonverbal advantages observed in bilingual children could be explained by their use of verbal mediation in the processing of nonverbal tasks.

**FIND OUT MORE ABOUT THE BENEFITS OF BILINGUALISM BY INVESTIGATING THESE  
REVIEWS OF THE LITERATURE.**

**Bialystok, E. (. (2005). *Consequences of bilingualism for cognitive development*. New York, NY, US: Oxford University Press.**

(From the chapter) Research addressing the possible cognitive consequences of bilingualism for children's development has found mixed results when seeking effects in domains such as language ability and intelligence. The approach in the research reported in this chapter is to investigate the effect that bilingualism might have on specific cognitive processes rather than domains of skill development. Three cognitive domains are examined: concepts of quantity, task switching and concept formation, and theory of mind. The common finding in these disparate domains is that bilingual children are more advanced than monolinguals in solving problems requiring the inhibition of misleading information. The conclusion is that bilingualism accelerates the development of a general cognitive function concerned with attention and inhibition, and that facilitating effects of bilingualism are found on tasks and processes in which this function is most required. (PsycINFO Database Record (c) 2006 APA, all rights reserved)

**Cummins, J. (1993). Bilingualism and second language learning. *Annual Review of Applied Linguistics*, 13, 51-70. from Linguistics and Language Behavior Abstracts database.**

The past five years have witnessed an increase in interest in bilingualism & second-language learning among researchers & policy makers. Growing cultural & linguistic diversity, cross-cultural contact, & the increasing recognition of the linguistic rights of indigenous & cultural minorities have fostered this interest. Recent advances in research & theory concerning these issues are addressed. Four topics are given specific attention: language shift in early childhood, cognitive & academic consequences of bilingualism & second-language learning, bilingualism & second-language learning during the school years, & theoretical approaches to the development of bilingualism & second-language learning. An annotated bibliography is also provided.

**Diaz, R. M. (., & Klinger, C. (1991). Towards an explanatory model of the interaction between bilingualism and cognitive development. In E. Bialystok (Ed.), *Most of the chapters in this volume were originally presented in the invited symposium "language acquisition and implications for processing in bilingual children" at the meeting of the society for research in child development, 1987*. (pp. 167-192). New York, NY, US: Cambridge University Press.**

(From the chapter) proposes an explanatory model of the relation between bilingualism and cognitive abilities that specifies the role of language awareness in the development of non-linguistic cognitive skills it is our belief that any successful explanation of the interaction between bilingualism and cognitive development must fulfill two basic requirements: first, the model should be formulated, developed, and tested within a solid theoretical framework regarding the relation between language and thought in development; second, the model should be constrained by the available data / in other words, the model should be developed in order to explain the reliable findings to date on bilingual cognitive development in order to fulfill our second requirement for the development of an explanatory model, we review the literature in search of findings that must be explained / discuss six different sets

of findings regarding the relation between bilingualism and cognitive development cognitive advantages / metalinguistic abilities / additive and subtractive situations / timing of positive effects / bilingual private speech Vygotsky's theory of thought and language (PsycINFO Database Record (c) 2006 APA, all rights reserved)

**Hakuta, K. (1986). *Cognitive development of bilingual children* No. ER3). U.S.; Connecticut:**

The idea that bilingualism causes cognitive damage to children is no longer held by researchers, but it lingers in popular belief. It is based on the assumption that language is central to cognitive development, which is not held by all theorists. Another theoretical issue is whether the mind is a limited-capacity container or can accommodate two languages with ease. Social concerns arising from cases of poor acculturation have also influenced research on bilingualism. More recent research has compared the performance of "real" bilingual children, those with roughly equal language skills, with that of monolingual children and found the former group to have superior performance, especially in metalinguistic ability. There is now data suggesting that even language minority students in bilingual education programs who are in the process of learning English can benefit from some of the advantages of bilingualism. These studies contradict the argument that bilingualism in itself might cause cognitive confusion in the child, and support the idea that bilingualism can lead to higher levels of metalinguistic awareness and cognitive ability. In general, they point to the benefits to children of all language backgrounds of learning and maintaining two languages. (MSE)

## STUDIES SUPPORTING INCREASED ACADEMIC ACHIEVEMENT

### LANGUAGE LEARNING CORRELATES WITH HIGHER ACADEMIC ACHIEVEMENT ON STANDARDIZED TEST MEASURES.

Armstrong, P. W., & Rogers, J. D. (1997). Basic skills revisited: The effects of foreign language instruction on reading, math, and language arts. *Learning Languages*, 2(3), 20-31.

Third-grade students from were randomly assigned to receive 30-minute Spanish lessons three times a week for one semester. These lessons focused on oral-aural skills and were conducted entirely in Spanish. **Students in the Spanish classes scored significantly higher than the group that did not receive Spanish instruction in math and language on the Metropolitan Achievement Test (MAT).** There was no significant difference in reading scores.

Cade, J. M. (1997). The foreign language immersion program in the Kansas City, Missouri Public Schools, 1986-1996 [Abstract]. *Dissertation Abstracts International -A* 58(10), 3838.

This study describes the planning, development, implementation, and assessment of the foreign language magnet plan in schools in the Kansas City, Missouri Public School District. **The program outcomes appeared to support the contentions found in research that, over time, second language learners (1) have improved test scores; (2) are able to think divergently; (3) achieve in their first language; and (4) attract and maintain parent involvement.**

Carr, C.G. (1994). The effect of middle school foreign language study on verbal achievement as measured by three subtests of the Comprehensive Tests of Basic Skills [Abstract]. *Dissertation Abstracts International -A* 55(07), 1856.

This study looked at the effects of foreign language study on the verbal achievement of middle school students as measured by three subtests of the Comprehensive Tests of Basic Skills. The students were compared with students who did not have language study but were enrolled in the Challenge Reading program. **The study concluded that performance in reading comprehension, language mechanics, and language expression was significantly higher in favor of the experimental group (foreign language study) when such variables as academic aptitude and level of performance in the treatment were statistically controlled.**

Johnson, C. E., Flores, J. S., & Ellison, F. P. (1963). The effect of foreign language instruction on basic learning in elementary schools: A second report. *The Modern Language Journal*, 47(1), 8-11.

This study looked at the effects of 20 minutes of daily Spanish instruction on academic achievement. Students were given the Iowa Every-Pupil Test of Basic Skills in September of students' fourth and fifth grade years. **Students receiving Spanish instruction scored higher than the control group in language skills, work study skills, and arithmetic, but the difference was not statistically significant.** Likewise, the control group scored higher than the experimental group in reading vocabulary and reading comprehension, but differences were not significant. **The author concludes that foreign language instruction does not hinder academic achievement.**

Johnson, C. E., Ellison, F. P., & Flores, J. S. (1961). The effect of foreign language instruction on basic learning in elementary schools. *The Modern Language Journal*, 45(5), 200-202.

In this pilot study, two third-grade classrooms were used to compare the effects of foreign language instruction on basic skills. One classroom received Spanish instruction for 25 minutes per day for the

spring semester, while the other class followed the regular curriculum with no foreign language instruction. **Analysis of the results showed the groups receiving language instruction had higher mean scores than the control group in arithmetic and English grammar, although their scores were slightly lower than the control group in English punctuation, comprehension, and vocabulary.**

**Haak, L. A., & Leino, W. B. (1963). The teaching of Spanish in the elementary schools and the effects on achievement in other selected subject areas., 100. from ERIC database.**

Classes from six schools were used with the experimental groups devoting 15 minutes per day to Spanish instruction over a three-year period. The Iowa Tests of Basic Skills and the Stanford Social Studies test served as measurements. **The conclusions drawn were (1) deletion of time from arithmetic, language and social studies had no detrimental effect upon measured achievement in subject areas from which the time was taken; (2) measured intelligence is positively correlated with measured achievement in the learning of Spanish.**

**Lopato, E. W. (1963). FLES and academic achievement. *The French Review*, 36(5), 499-507.**

114 third-grade students from four classrooms participated in this study. Students were "equated" for grade placement, age, intelligence, and socio-economic status, and teachers were "equated" for fluency in French. These experimental groups received daily 15-minute French lessons from their classroom teachers, who were both described as "fluent" in French. The French instruction was aural-oral and did not include reading or writing in the target language. The Stanford Achievement Test was given as a pre-test at the beginning of the school year, and an alternate form of the test was given at the end of the school year. **At one of the school sites, the experimental group scored significantly higher than the control group on the average arithmetic scores, but not on average reading, spelling, or language. At the other school site, students receiving foreign language instruction scored significantly higher on the average arithmetic and spelling sections, but not the average reading or language sections of the test.**

**Rafferty, E. A. (1986). *Second language study and basic skills in Louisiana*. U.S.; Louisiana, from ERIC database.**

A statewide study in Louisiana revealed that third, fourth, and fifth graders who participated in 30-minute elementary school foreign language programs in the public schools showed significantly higher scores on the 1985 Basic Skills Language Arts Test than did a similar group that did not study a foreign language. Further, by fifth grade, the math scores of language students were also higher than those of students not studying a foreign language. Both groups were matched for race, sex, and grade level, and the academic levels of students in both groups were estimated by their previous Basic Skills Test results and statistically equated. **The results of the analysis suggest that foreign language study in the lower grades helps students acquire English language arts skills and, by extension, math skills.**

**Sheridan, R. (1976). *Augmenting reading skills through language learning transfer. FLES Latin program evaluation reports, 1973-74, 1974-75, 1975-76.* From ERID database.**

A project was begun in 1973 in the Indianapolis Public School system based on the hypothesis that English language skills and the control of syntactic structures can be measurably improved through participation in a specially designed Latin FLES program stressing the importance of Latin root words. Goals of the project were to assess whether or not the study of Latin and classical civilization will: (1) expand the verbal functioning of sixth grade children in English, and (2) broaden their cultural horizons and stimulate an interest in humanities. The project was directed towards approximately 400

sixth graders in six schools, all studying Latin and classical civilization in a program coordinated with their regular classes. They received a thirty-minute lesson each day 5 days per week taught by a Latin specialist. **The present program evaluation report shows overall gains in word knowledge, reading, language, spelling, math computation, math concepts, math problem solving, and social studies after the first year, and gains in spelling, reading, and math concepts following the second and third years of the program, as seen from results on subtests of the Metropolitan Achievement Test.**

Thomas, W. P., Collier, V. P., & Abbott, M. (1993). Academic achievement through Japanese, Spanish, or French: The first two years of partial immersion. *Modern Language Journal, 77*(2), 170-179. from PsycINFO database.

Compared the academic performance of 719 1st-, 2nd-, and 3rd graders in a foreign language partial immersion program with that of 1,320 students in the same grades and with similar demographics, but not in an immersion program. Students were tested to determine performance in mathematics and English language arts, and oral proficiency in the target language (Japanese, Spanish, or French) was examined for immersion students. **Immersion students scored at least as well, and to some extent better than, nonimmersion students. There was no evidence that the immersion experience hampered academic and cognitive development.** In target language proficiency, immersion students made steady progress toward oral proficiency in the target language, reaching the upper end of the midlevel proficiency range by the end of the 2nd yr.

Barik, H. C., & Swain, M. (1978). Evaluation of a French immersion program: The Ottawastudy through grade five. *Canadian Journal of Behavioural Science, 10*(3), 192-201. from PsycINFO database.

Assessed a Canadian French immersion program in which English-speaking pupils attending English schools are taught partially or completely in French. The program involved nearly 33% of the children who entered the Ottawa public school system in kindergarten. Two groups were matched according to socioeconomic status characteristics and were generally from a middle to upper-middle-class background. Sstudents were administered several measures including the Canadian Cognitive Abilities Test and Canadian Tests of Basic Skills. Only Grade 5 students were given the Metropolitan Science Test only. French immersion pupils were given a set of achievement tests in French and tests of reading comprehension in French. **Results indicate that immersion group students were in general on the same level with or ahead of the regular English in most academic areas considered (e.g., work-study skills and mathematics) and were performing satisfactorily in French.**

Genesee, F., & Lambert, W. E. (1983). Trilingual education for majority-language children. *Child Development, 54*(1), 105-114. from PsycINFO database.

Examined the effectiveness of double-immersion (DI) programs in which English-speaking children receive curriculum instruction in 2 second languages (Hebrew and French) before or along with 1st-language instruction. French second-language proficiency of Grade 5 DI students was as good as that of comparable students in single-immersion programs in French only and better than that of non-immersion students with conventional French-as-a-second-language instruction. **None of the DI groups showed deficits in 1st-language development or academic achievement. It is concluded that DI, especially if begun early, can be an effective means for English-speaking children to acquire functional proficiency in 2 non-native languages and that instruction in the 1st language in the beginning of the program has no long-term benefits to first-language development but may slow down second-language learning.**

Turnbull, M., Hart, D., & Lapkin, S. (2003). Grade 6 French immersion students' performance on large-scale reading, writing, and mathematics tests: Building explanations. *Alberta Journal of Educational Research*, 49(1), 6-23. from PsycINFO database.

We analyzed data from Ontario's provincial testing program to ascertain if the reading, writing, and mathematics skills of grade 6 immersion students were comparable to those of regular English program students. **The analysis confirms the results of earlier program evaluations that any lags in immersion students' achievement in reading, writing, and math disappear by grade 6.** We offer two explanations to account for this result. The lag explanation holds that taking reading, writing, and math in French until the end of grade 3 creates a lag in achievement until English is introduced into the curriculum, after which immersion students catch up to regular students' performance. The selection explanation suggests that immersion test performance improves by grade 6 relative to regular English program counterparts because the composition of the grade 6 cohort is more select than that of earlier cohorts.

#### LANGUAGE LEARNING IS BENEFICIAL TO BOTH MONOLINGUAL ENGLISH AND ENGLISH LANGUAGE LEARNERS IN BILINGUAL AND TWO-WAY IMMERSION PROGRAMS.

Cohen, A. D. (1974). The Culver City Spanish immersion program: The first two years. *The Modern Language Journal*, 58(3), 95-103. from Linguistics and Language Behavior Abstracts database.

A report on the Culver City Spanish Immersion Program designed for the bilingual education of English speaking students learning Spanish showed definite patterns emerging following the second year of the program. **The English speaking students were acquiring competence in understanding, speaking, reading, and writing Spanish, while maintaining English language proficiency.** These students are also performing on the same level as their English speaking age group who were not in bilingual programs in content subjects such as mathematics.

Pagan, C. R. (2005). English learners' academic achievement in a two-way versus a structured English immersion program [Abstract]. *Dissertation Abstracts International, A: The Humanities and Social Sciences*, 66 (5), 1603-A-1604-A. (Available from UMI, Ann Arbor, MI. Order No. DA3175715.)

This study examines the academic achievement scores of English learners in a two-way immersion (TWI) program and a Structured English Immersion program in two California elementary schools. In addition, this study compares the English and Spanish academic performance of English learners with the achievement levels of English-dominant students in the same TWI program. A total of 194 students were followed over a three-year period beginning with the 1999-2000 school year and ending in 2001-2002. Assessment scores from the Stanford 9 (reading and mathematics) and the Spanish Assessment for Basic Education (SABE) (reading and mathematics) were collected and analyzed. **The findings support work by other researchers who have reported that teaching English learners in their home language does not impede the acquisition of English. Similarly, English-dominant students in a TWI program, by the end of their first and third year of this study, were achieving at-or-above grade level in both English and Spanish.**

## LANGUAGE LEARNING IS BENEFICIAL IN THE DEVELOPMENT OF STUDENTS' READING ABILITIES.

D'Angiulli, A., Siegel, L. S., & Serra, E. (2001). The development of reading in English and Italian in bilingual children. *Applied Psycholinguistics*, 22(4), 479-507. from PsycINFO database.

This study analyzes the reading abilities of 81 English-speaking Canadian-born children (ages 9-13) who had been exposed to Italian at home, where both languages were spoken by their middle-class parents. The children attended an Italian heritage language class every day for 35 minutes, starting in the first grade. English and Italian monolingual comparison groups of students were used, which matched students on age. English monolingual students were comparable to bilingual students in that they lived in same geographical area, were taught using similar methods, and had comparable socioeconomic status. The Italian monolingual students from northern Italy were similar to the bilingual group in socioeconomic status and family background. A series of word reading, pseudoword reading, spelling, working memory, and oral cloze tasks were administered in each language. Findings indicate significant similar levels of performance in both languages, with correlations between English and Italian word reading, pseudoword reading, and spelling. **In comparing 9-10 year-old bilinguals to English monolinguals on tasks in English, the bilingual skilled readers scored higher on word-reading and spelling tasks than the monolingual skilled readers, although no differences were found on pseudoword reading tasks, working memory, or oral cloze tasks.**

Diaz, J. O. P. (1982). The effects of a dual language reading program on the reading ability of Puerto Rican students. *Reading Psychology*, 3(3), 233-238. from ERIC database.

This study revealed that Puerto Rican students recently arrived in the United States who participated in a bilingual reading program in Spanish and English performed significantly better than did similar students who did not participate in the program.

District of Columbia Public Schools, Washington, D.C. (1971). A study of the effect of Latin instruction on English reading skills of sixth grade students in the public schools of the district of Columbia, school year, 1970-71., 18. from ERIC database.

This study examines the effect of language study on the English reading skills of sixth-grade school children. Achievement in reading skills of a control group of students receiving no foreign language instruction was compared with that in the Latin instruction group. Differences in scores of pretests and posttests of the more than 1100 students in three categories of reading achievement--vocabulary, comprehension, and total reading skills--were used as the data in determining average achievement in each group. **Results of the study indicate that there is a significant difference between reading achievement scores of sixth-grade students receiving foreign language instruction and students with no foreign language instruction.**

Garfinkel, A., & Tabor, K. E. (1991). Elementary school foreign languages and English reading achievement: A new view of the relationship. *Foreign Language Annals*, 24(5), 375-382. from Linguistics and Language Behavior Abstracts database.

In a four-year study of the relationship between the length of elementary foreign-language education & English reading achievement, 672 students from a Midwestern elementary school were administered reading tests after they had received two or four years of foreign-language instruction - up to grade six. **The sample represented varying intelligence levels. Results indicated that**

students of average intelligence profited most from the two extra years of instruction in terms of English reading skills.

**THERE IS EVIDENCE THAT LANGUAGE LEARNERS TRANSFER SKILLS FROM ONE LANGUAGE TO ANOTHER.**

Cunningham, T. H., & Graham, C. R. (2000). Increasing native English vocabulary recognition through Spanish immersion: Cognate transfer from foreign to first language. *Journal of Educational Psychology*, 92(1), 37-49. from PsycINFO database.

Effects of Spanish immersion on children's native English vocabulary were studied. Matched on grade, sex, and verbal scores on a 4th-grade Cognitive Abilities Test (CAT), 30 5th- and 6th-grade immersion students and 30 English monolinguals did 60 consecutive Peabody Picture Vocabulary Test (PPVT) items. The CAT and conventionally scored PPVT revealed comparable verbal ability between groups, but on 60 consecutive PPVT items, immersion did better than control because of cognates. On SECT, immersion significantly outperformed students in the control group. **Findings support the idea that Spanish immersion has English-language benefits and that positive transfer (cross linguistic influence) occurs from Spanish as a foreign language to native English receptive vocabulary.**

Hoffenberg, R. M., et al. (1971). Evaluation of the elementary school (FLES) Latin program 1970-71. R7202, Report: R-7202. 53.

This study analyzes the effect of one year of daily Latin instruction (15- to 20-minute lessons) on academic achievement, as measured by the vocabulary section of the Iowa Test of Basic Skills. Thirty four fifth- and sixth-grade experimental subjects were matched with an equal number of control group subjects on measures of Iowa test score (from the previous year), grade level, and neighborhood. The authors note, however, that the neighborhood matching only provided a "rough control over socioeconomic factors." **Results indicated that fifth-grade students in the experimental group were functioning on grade level (sixth month of fifth grade) on the English vocabulary measure while the control group scored one year below grade level. The authors concluded that Latin instruction was effective in building English vocabulary of experimental group students.**

Masciantonio, R. (1977). Tangible benefits of the study of Latin: A review of research. *Foreign Language Annals*, 10(375), 382. From ERIC database.

This article examines the linguistic benefits of Latin in light of recent research which seems to document the relevance of Latin in building English vocabulary and reading skills. Evidence is cited from eight educational projects in which an experimental group of students taking Latin, and a control group not taking Latin, were pretested, posttested, and compared with regard to English verbal skills. **In each case, the Latin students showed significant gains over the control group.** Other studies supporting these findings are cited, as well as projects presently being conducted. These studies yield important pedagogical implications: (1) educational administrators and curriculum specialists should consider the significance of Latin in improving language skills; (2) the language profession should assume the responsibility of disseminating information about this research; and (3) responsible educators should combat the tendency to ignore research data for budgetary or other reasons.

## THERE IS A CORRELATION BETWEEN SECOND LANGUAGE LEARNING AND INCREASED LINGUISTIC AWARENESS.

Demont, E. (2001). Contribution of early 2nd-language learning to the development of linguistic awareness and learning to read/Contribution de l'apprentissage précoce d'une deuxième langue au développement de la conscience linguistique et à l'apprentissage de la lecture. *International Journal of Psychology*, 36(4), 274-285. from PsycINFO database

This study aimed to validate the effects of second language learning on children's linguistic awareness. More particularly, it examined whether bilingual background improves the ability to manipulate morpho-syntactic structure. The study postulated that children who received a precocious learning of 2 languages (French-German) may develop enhanced awareness and control of syntactic structure since they need an appropriate syntactic repertoire in each language. In return, these children will gain access to the written language with more ease. **The results showed an advantage for the children who attended bilingual classes since kindergarten: they were better at grammatical judgment and correction tasks and word recognition.**

## THERE IS A CORRELATION BETWEEN LANGUAGE LEARNING AND STUDENTS' ABILITY TO HYPOTHEZIZE IN SCIENCE.

Kessler, C., & Quinn, M. E. (1980). Positive effects of bilingualism on Science problem-solving abilities. In J. Alatis (Ed.), *Georgetown University round table on languages and linguistics* (pp. 295-308). Washington, DC: Georgetown University Press, from Linguistics and Language Behavior Abstracts database.

Examined are the consequences of bilingualism on children's ability to formulate scientific hypotheses or solutions to science problems & interactions of this ability with aspects of linguistic competence. Experimental group treatment consisted of 12 science inquiry film sessions & 6 discussion sessions, all taught by the same teacher in English. The quality of scientific hypotheses and the complexity of the language used to express them were found to be significantly higher for both experimental groups than for the control groups. **However, the bilingual children, given the same instruction by the same teacher in formulating scientific hypotheses, consistently outperformed monolingual children both in the quality of hypotheses generated and in the syntactic complexity of the written language.** One implication is that a well-organized bilingual program where children develop in two linguistic perspectives can make the positive interactions of cognitive functioning & language development more fully operative.

## LANGUAGE LEARNING CAN BENEFIT ALL STUDENTS.

Holobow, N. E., Genesee, F., Lambert, W. E., & Gastright, J. (1987). Effectiveness of partial French immersion for children from different social class and ethnic backgrounds. *Applied Psycholinguistics*, 8(2), 137-151. from PsycINFO database.

Evaluated a program of partial (half-day) French immersion in kindergarten. The English and French language development of 122 native English-speaking children from both working and middle class backgrounds was assessed. Results indicate that the 73 experimental students progressed just as well in English as 70 matched controls who followed a conventional all-English program. **It was also found that socioeconomically underprivileged students (both Black and White) benefited from**

an immersion-type introduction to a foreign language as much as students from middle class homes did. Degree of progress in French was not linked with social class background, even though this background factor clearly affected performance on the English language tests.

### THERE IS A CORRELATION BETWEEN YOUNG CHILDREN'S SECOND LANGUAGE DEVELOPMENT AND THE DEVELOPMENT OF PRINT AWARENESS.

Bialystok, E. (1997). Effects of bilingualism and biliteracy on children's emerging concepts of print. *Developmental Psychology*, 33(3), 429-440. from PsycINFO database.

Three groups of 4- and 5-year-old children were examined for their concepts of how print refers to language. All of the children could identify printed letters and their sounds but not read alone. The groups studied were monolingual speakers of English, bilingual speakers of French and English, and bilingual speakers of Chinese (Mandarin) and English. Bilingual children were equally proficient in both languages and were familiar with print and storybooks in both languages. The tasks assessed children's understanding of the general correspondence between print and language in which the printed form represents a word and the specific correspondence between a constituent of print and one of language that determines representation in a given writing system. The general correspondence relation applies to all writing systems, but the specific correspondence relation changes for different kinds of writing systems. **Bilingual children understood better than monolingual children the general symbolic representation of print. The older Chinese-English bilingual children also showed advanced understanding of the specific correspondence relations in English print.**

### HERITAGE LEARNERS WHO USE THEIR LANGUAGE SKILLS TO INTERPRET AND TRANSLATE FOR FAMILY MEMBERS EXPERIENCE HIGHER ACADEMIC PERFORMANCE AND GREATER SELF-EFFICACY.

Buriel, R., Perez, W., De Ment, T. L., Chavez, D. V., & Moran, V. R. (1998). The relationship of language brokering to academic performance, biculturalism, and self-efficacy among Latino adolescents. *Hispanic Journal of Behavioral Sciences*, 20(3), 283-297. from PsycINFO database.

Children who interpret for their immigrant parents are referred to as language brokers. The present study examined the relationship of language brokering to academic performance, biculturalism, academic self-efficacy, and social self efficacy. The many adultlike experiences of children who broker on a regular basis suggest that their cognitive and socioemotional development may be accelerated relative to children of immigrant families who broker infrequently or not at all. 122 Latino adolescents from immigrant families were participants in the study. Results showed that, as expected, language brokering was positively related to biculturalism, and in turn, **both of these variables were positively related to academic performance. In addition, the strongest predictor of academic performance was academic self-efficacy.** Results also indicated that, to some degree, language brokering is a gendered activity, with females reporting more brokering than males.

## THERE IS A CORRELATION BETWEEN LANGUAGE STUDY AND HIGHER SCORES ON THE SAT AND ACT TESTS.

Cooper, T. C. (1987). Foreign language study and SAT-verbal scores. *Modern Language Journal*, 71(4), 381-387. from ERIC database.

Comparison of verbal Scholastic Aptitude Test (SAT) and California Achievement Test (CAT) scores of high school students who had or had not taken at least one year of foreign language study supported the conclusion that length of foreign language study was positively related to high SAT verbal scores.

Eddy, P. A. (1981). *The effect of foreign language study in high school on verbal ability as measured by the scholastic aptitude test-verbal. final report.* U.S.; District of Columbia, from ERIC database

Students in the eleventh grade in three Montgomery County, Maryland high schools were the subjects of a study to determine the effect of foreign language study on performance on the verbal section of the Scholastic Aptitude Test (SAT). **The following results were reported: (1) when verbal ability is controlled, students who study foreign language for longer periods of time will do better on various SAT sub-tests and on the SAT-Verbal as a whole than students who have studied less foreign language;** (2) having studied two foreign languages has no significant effect on SAT scores or on scores on the Test of Academic Progress (TAP); (3) language studied has no differential effect on SAT or TAP scores; and (4) there is some evidence that higher grades in foreign language study will increase the effect of this study on SAT scores (particularly the reading and vocabulary sub-scores). In conclusion, it appears that the effect of foreign language study makes itself felt more in the area of vocabulary development than it does in that of English structure use.

Olsen, S.A., Brown, L.K. (1992). The relation between high school study of foreign languages and ACT English and mathematics performance. *ADFL Bulletin*, 23(3), from ERIC database.

Analysis of the American College Test (ACT) scores of 17,451 students applying for college admission between 1981 and 1985 found that high school students who studied a foreign language consistently scored higher on ACT English and mathematics components than did students who did not study a foreign language in high school.

Timpe, E. (1979). The effect of foreign language study on ACT scores. *ADFL Bulletin*, 11(2), 10-11.

School records of 7,460 students at Southern Illinois University at Carbondale were analyzed to assess the extent to which foreign language study correlates with ACT scores. Students were selected on the basis of having ACT scores on file and having answered survey questions about their previous foreign language study. To control for intelligence, students were divided into a "more gifted" group (GPA of 3.0 or higher, college preparatory program, top quarter of their class) and a lower group not meeting the stated requirements. **The authors explain that the more gifted students were more likely to take foreign languages, but that for each group, years of study led to improved composite ACT scores, with the highest effect on scores in the English subsection of the test.**

**THERE IS A CORRELATION BETWEEN HIGH SCHOOL FOREIGN LANGUAGE STUDY AND HIGHER ACADEMIC PERFORMANCE AT THE COLLEGE LEVEL.**

**Wiley, P. D. (1985). High school foreign language study and college academic performance. *Classical Outlook*, 62(2), 33-36. from ERIC database.**

Examines the correlation between high school foreign language study and success in college. Found that those who studied Latin, French, German, or Spanish in high school may be expected to perform better academically in college than students of equal academic ability who do not take a foreign language.

## WHAT THE RESEARCH SHOWS ABOUT STUDENTS' ATTITUDES AND LANGUAGE LEARNING

### RESEARCH SUGGESTS THAT LANGUAGE LEARNERS DEVELOP A MORE POSITIVE ATTITUDE TOWARD THE TARGET LANGUAGE AND/OR THE SPEAKERS OF THAT LANGUAGE.

**Bamford, K. W., & Mizokawa, D. T. (1989). Cognitive and attitudinal outcomes of an additive-bilingual program. U.S.; Washington: ED305826**

A study compared language skill development and cultural attitudes of second-grade children taught in an additive-bilingual program setting with those of second-grade children from a monolingual classroom setting. Zooming in on the attitude question: The researchers hypothesized that the Spanish-immersion group would be more positive than the control group on the Cross-Cultural Attitude Inventory (CCAI), an instrument that is a measure of attitudes toward Mexican-American culture. The results of the analysis revealed a significant change in attitudes towards Hispanic culture between the fall and spring administrations in favor of the Spanish-immersion group. In the discussion section, the authors suggest that the results support Gardner's model of language acquisition which proposes that attitudes towards the target language community may be outcomes of second language learning.

**Peal, E., & Lambert, W. E. (1962). The relation of bilingualism to intelligence. Psychological Monographs, 76(27, Whole No. 546), 23. from PsycINFO database.**

This study compares measures of verbal and nonverbal intelligence, as well as student attitudes toward French and English communities. The sample included monolingual [French only] and bilingual [French-English, with French as the native language] 10-year old children attending 6 Montreal French schools. They were given two attitude questionnaires, called the "Attitude-to-English" and "Attitude-to-French" scales. An analysis of a subgroup of the sample, matched on socioeconomic status, shows that the bilingual students scored significantly higher than monolingual students in positive attitudes toward English speakers.

**Riestra, M. A., & Johnson, C. E. (1964). Changes in attitudes of elementary-school pupils toward foreign-speaking pupils resulting from the study of a foreign language. Journal of Experimental Education, 33(1), 65-72. from PsycINFO database.**

An experimental group of 63 5th grade pupils who had been learning Spanish and a matched controlled group of pupils who had not been learning Spanish were tested to determine attitudes toward people of other countries. The experimental group had significantly more positive attitudes toward the Spanish-speaking peoples they had studied about than did the group that had not studied Spanish.

### HELPFUL RESOURCES ON THE TOPIC OF ATTITUDES AND FOREIGN LANGUAGE LEARNING

**Morgan, C. (1993) 'Attitude change and foreign language culture learning' in Language Teaching, 26 (2), pp. 63-75.**

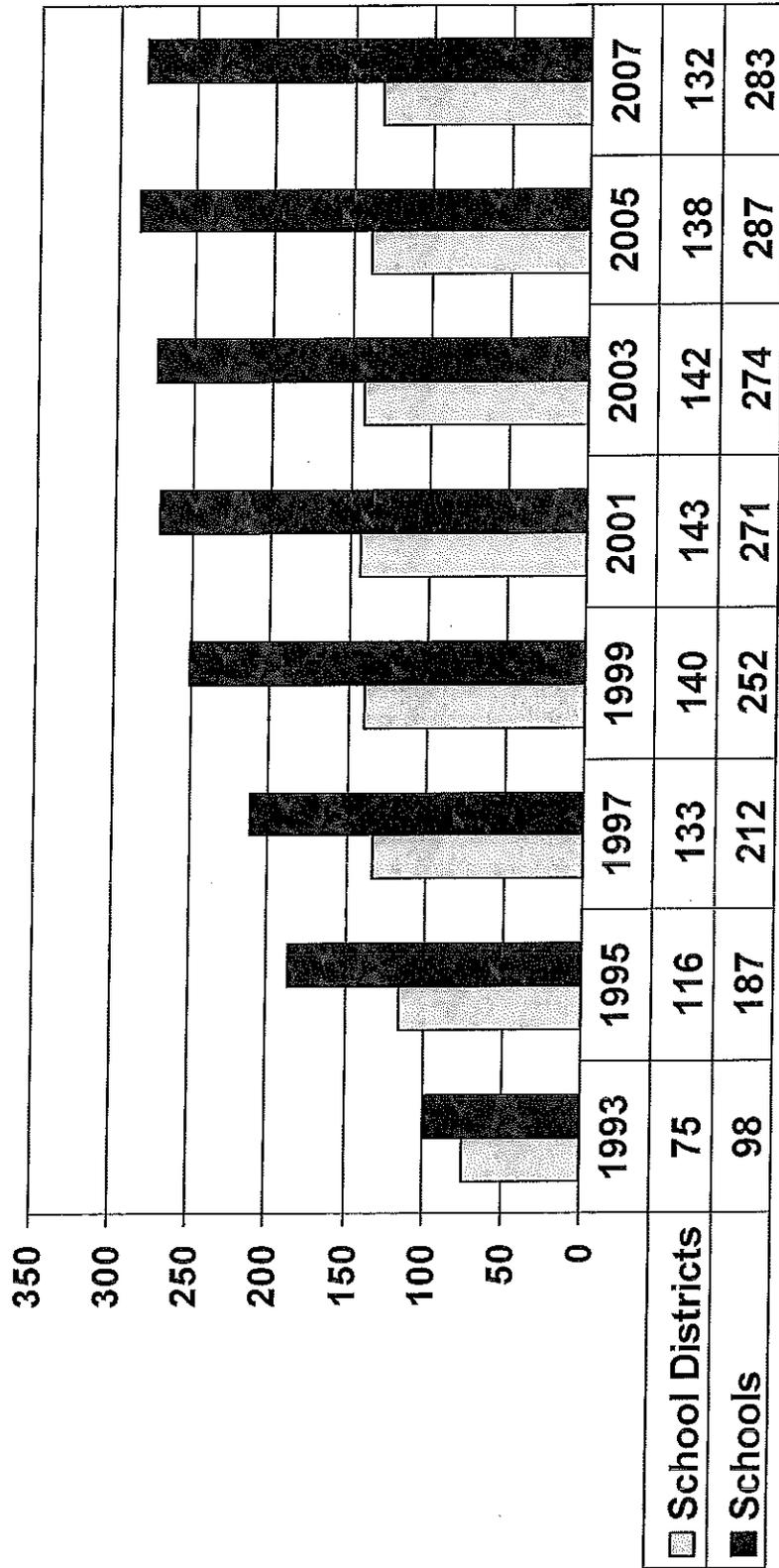
D.E. Ingram (to see Ingram's paper go to [http://www.tesolchile.net/documents/sept2005/DEIngram\\_fullpaper\\_Oct2004.htm](http://www.tesolchile.net/documents/sept2005/DEIngram_fullpaper_Oct2004.htm)) refers to Morgan's article as "one of the most comprehensive reviews of the relations between foreign language learning and attitude change" (p.3 of Ingram's paper). Morgan reviews articles from as early as 1932 and

makes conclusions regarding the fact that a number of factors were important if positive attitude changes occurred. Morgan's piece and Ingram's piece might be helpful if you would like to look at features in language learning experiences that may be correlated with attitudinal change.



# ED 165 Data

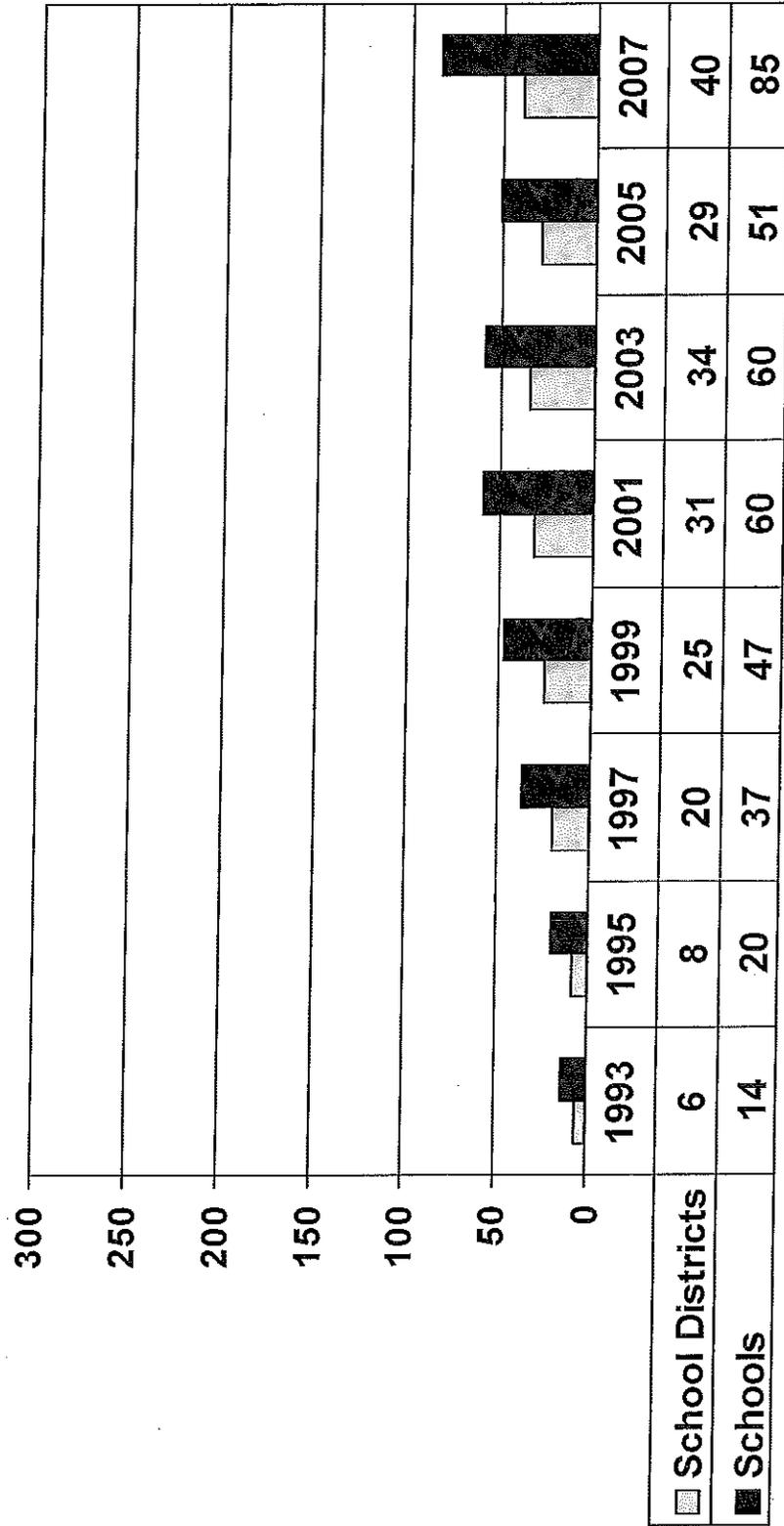
## Connecticut World Language Instruction before Grade 8





# ED 165 Data

## Connecticut World Language Instruction before Grade 4



District Name	School name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Range	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name
Andover School District	Andover Elementary School	347	4.0	PK	6									
Ansonia School District	Mead School	599	47.9	3	5									
Ansonia School District	Prendergast School	776	50.3	PK	2									
Ansonia School District	Ansonia Middle School	597	51.8	6	8									
Ashford School District	Ashford School	500	14.2	PK	8	7								
Avon School District	Roaring Brook School	776	2.4	PK	4									
Avon School District	Pine Grove School	618	4.0	PK	4									
Avon School District	Thompson Brook School	590	4.2	5	6	6								
Avon School District	Avon Middle School	582	1.7	7	8	7								
Barkhamsted School District	Barkhamsted Elementary School	328	5.2	K	6									
Berlin School District	Richard D. Hubbard School	263	3.4	K	5									
Berlin School District	Emma Hart Willard School	577	7.3	PK	5									
Berlin School District	Mary E. Griswold School	589	5.6	PK	5									
Berlin School District	Catherine M. McGee Middle School	777	7.7	6	8	8								
Bethel School District	Bethany Community School	569	2.8	PK	6									
Bethel School District	Frank A. Berry School	488	5.7	PK	3									
Bethel School District	Anna H. Rockwell School	425	8.0	K	3									
Bethel School District	Ralph M. T. Johnson School	454	12.3	4	5									
Bethel School District	Bethel Middle School	743	9.3	6	8	7								
Bloomfield School District	J. P. Vincent School	315	36.5	PK	4									
Bloomfield School District	Metacommet School	238	44.1	K	4									
Bloomfield School District	Laurel School	268	42.5	K	4									
Bloomfield School District	Bloomfield School District	348	45.4	1	6									
Bloomfield School District	Carmen Arace Intermediate School	342	41.5	7	8	7								
Bolton School District	Bolton Center School	598	6.5	PK	8	3								
Bozrah School District	Fields Memorial School	264	13.6	PK	8	6								
Branford School District	Mary T. Murphy School	416	21.9	K	4									
Branford School District	Mary R. Tisko School	430	10.2	K	4									
Branford School District	John B. Sliney School	345	14.8	K	4									
Branford School District	Francis Walsh Intermediate School	####	13.5	5	8	7								
Bridgeport School District	Barnum School	279	>95.0	PK	6									
Bridgeport School District	Bearisley School	607	>95.0	PK	6									
Bridgeport School District	Black Rock School	272	>95.0	K	6									
Bridgeport School District	Bryant School	413	>95.0	PK	5									
Bridgeport School District	Columbus School	763	>95.0	PK	6									
Bridgeport School District	Edison School	408	>95.0	PK	6									
Bridgeport School District	Garfield School	279	>95.0	PK	6									
Bridgeport School District	Luis Munoz Martin School	846	>95.0	PK	8									
Bridgeport School District	Hall School	344	>95.0	K	6									
Bridgeport School District	Hooker School	322	>95.0	PK	6									
Bridgeport School District	Hooker School	451	>95.0	K	8									
Bridgeport School District	Cesar Batalla School	####	>95.0	PK	8									
Bridgeport School District	Park City Magnet School	501	91.6	PK	8									
Bridgeport School District	Longfellow School	475	>95.0	PK	8									
Bridgeport School District	Madison School	562	>95.0	K	5									
Bridgeport School District	Classical Studies Academy	375	>95.0	K	6									
Bridgeport School District	McKinley School	329	>95.0	PK	6									
Bridgeport School District	Read School	904	>95.0	K	8									



District Name	School name	Enrollment	Pet. Eligible for Free/Reduced Price Meals	Grade Range		Language Start Grade													
				Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name					
Columbia School District	Horace W. Porter School	588	5.6	PK	8		7												
Cornwall School District	Cornwall Consolidated School	129	5.4	K	8		K												
Coventry School District	Coventry Grammar School	425	8.2	K	2														
Coventry School District	George Hersey Roberson School	474	11.2	3	5														
Coventry School District	Capt. Nathan Hale School	539	8.0	6	8		7												
Cromwell School District	Edna C. Stevens School	482	11.2	PK	2														
Cromwell School District	Woodside Intermediate School	472	12.9	3	5														
Cromwell School District	Cronwell Middle School	473	11.4	6	8		7												
Danbury School District	Hayestown Avenue School	398	35.2	PK	5														
Danbury School District	Mill Ridge Primary School	296	35.8	PK	2														
Danbury School District	Morris Street School	343	64.4	PK	5														
Danbury School District	Park Avenue School	376	56.9	K	5														
Danbury School District	South Street School	306	55.2	K	5														
Danbury School District	Great Plain School	314	32.8	K	5														
Danbury School District	Shelter Rock School	338	41.1	K	5														
Danbury School District	King Street Primary School	293	24.9	PK	2														
Danbury School District	Roberts Avenue School	332	56.0	K	5														
Danbury School District	Pembroke School	335	31.9	K	5														
Danbury School District	Stadley Rough School	454	29.3	PK	5														
Danbury School District	King Street Intermediate School	316	25.3	3	5														
Danbury School District	Mill Ridge Intermediate School	348	31.6	PK	5														
Danbury School District	Western CT Academy of Internation	317	9.1	K	5														
Danbury School District	Broadview Middle School	###	28.0	6	8														
Danbury School District	Rogers Park Middle School	###	38.4	6	8														
Darien School District	Hindley Elementary School	519	0.0	PK	5														
Darien School District	Royle Elementary School	451	2.2	K	5														
Darien School District	Tokeneke Elementary School	388	0.3	K	5														
Darien School District	Holmes Elementary School	483	1.7	K	5														
Darien School District	Ox Ridge Elementary School	511	0.2	K	5														
Darien School District	Middlesex Middle School	###	1.9	6	8														
Deep River School District	Deep River Elementary School	389	9.8	PK	6														
Derby School District	Irving School	416	62.7	PK	6														
Derby School District	Bradley School	364	29.9	PK	6														
Eastford School District	Eastford Elementary School	187	7.5	PK	8														
Eastford School District	Allgrove School	294	1.0	PK	3														
East Granby School District	R. Dudley Seymour School	141	0.7	4	5														
East Granby School District	East Granby Middle School	218	1.8	6	8														
East Haddam School District	East Haddam Elementary School	536	6.0	PK	4														
East Haddam School District	Nathan Hale-Ray Middle School	477	5.0	5	8														
East Hampton School District	Memorial School	632	6.2	PK	3														
East Hampton School District	Center School	349	9.5	4	5														
East Hampton School District	East Hampton Middle School	507	8.3	6	8														
East Hartford School District	Joseph O. Goodwin School	320	39.4	K	5														
East Hartford School District	Hockanum School	353	55.8	PK	5														
East Hartford School District	Dr. Franklin H. Mayberry School	407	59.7	K	5														
East Hartford School District	Anna E. Norris School	297	59.6	K	5														
East Hartford School District	Dr. Thomas S. O'Connell School	314	32.5	K	5														
East Hartford School District	Silver Lane School	322	58.4	K	5														
East Hartford School District	Robert J. O'Brien School	461	55.1	K	5														

District Name	School Name	Enrollment	Pet. Eligible for		Grade Range		Language Start Grade										
			Free	Reduced Price/Meals	Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name		
East Hartford School District	Governor William Pitkin School	331		28.5	K	5											
East Hartford School District	Dr. John A. Langford School	346		44.8	K	5											
East Hartford School District	Sunset Ridge School	451		49.7	6	6											
East Hartford School District	East Hartford Middle School	###		47.7	7	10		7									
East Haven School District	Deer Run School	335		32.2	1	6											
East Haven School District	Monauguin School	209		54.1	1	6											
East Haven School District	Grove J. Tuttle School	212		34.9	1	6											
East Haven School District	Dominick H. Ferrara School	186		29.6	1	6											
East Haven School District	D. C. Moore School	239		46.4	PK	6											
East Haven School District	Robert W. Carbone School	318		35.5	1	6											
East Haven School District	East Haven Academy	220		15.0	3	8		3									
East Haven School District	Overbrook School	165		31.5	PK	K											
East Haven School District	Hays School	178		17.4	PK	K											
East Haven School District	Joseph Mejillo Middle School	481		31.4	7	8		7									
East Lyme School District	Flanders School	399		3.0	K	4											
East Lyme School District	Niantic Center School	242		9.9	K	4											
East Lyme School District	Lillie B. Haynes School	342		11.1	K	4											
East Lyme School District	East Lyme Middle School	913		7.1	5	8		5		5							
Easton School District	Samuel Staples Elementary School	801		0.5	PK	5		5		5							
East Windsor School District	Helen Keller Middle School	377		0.5	6	8		6		6							
East Windsor School District	Broad Brook Elementary School	617		25.6	PK	4											
East Windsor School District	East Windsor Middle School	399		29.6	5	10											
Ellington School District	Center School	408		5.4	PK	4											
Ellington School District	Crystal Lake School	207		5.8	K	4											
Ellington School District	Windermere School	404		4.2	K	4											
Ellington School District	Windermere Intermediate School	401		5.5	5	6											
Ellington School District	Ellington Middle School	408		4.9	7	8		7									
Enfield School District	Enfield Street School	333		37.2	PK	6											
Enfield School District	Hazardville Memorial School	413		15.3	PK	6											
Enfield School District	Nathan Hale School	272		16.2	PK	6											
Enfield School District	Harriet Beecher Stowe School	282		20.6	PK	6											
Enfield School District	Edgar H. Parkman School	363		8.5	PK	6											
Enfield School District	Prudence Crandall School	416		19.7	PK	6											
Enfield School District	Eli Whitney School	387		25.6	PK	6											
Enfield School District	Thomas G. Alcorn School	283		74.2	K	6											
Enfield School District	Henry Barnard School	429		33.3	K	6											
Enfield School District	John F. Kennedy Middle School	992		22.5	7	9		7									
Essex School District	Essex Elementary School	549		3.3	K	6		2									
Fairfield School District	Dwight Elementary School	340		0.6	K	5		4									
Fairfield School District	Burr Elementary School	445		1.3	K	5		4									
Fairfield School District	Holland Hill School	358		11.7	K	5		4									
Fairfield School District	McKinley School	462		22.1	PK	5		4									
Fairfield School District	Mill Hill School	465		1.3	K	5		4									
Fairfield School District	Riverfield School	473		2.1	K	5		4									
Fairfield School District	Sherman School	453		4.4	K	5		4									
Fairfield School District	Strafford School	460		2.2	K	5		4									
Fairfield School District	North Stratfield School	495		3.4	K	5		4									
Fairfield School District	Jennings School	353		4.0	K	5		4									
Fairfield School District	Osborn Hill School	519		1.7	K	5		4									
Fairfield School District	Tomlinson Middle School	737		4.1	6	8		6									

District Name	School Name	Enroll- ment	Pet. Eligible for		Grade Range		Language Start Grade											
			Free/Reduced	Meals	Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name			
Fairfield School District	Fairfield Woods Middle School	597	2.8		6	8												
Fairfield School District	Roger Ludlowe Middle School	887	10.1		6	8												
Farmington School District	Union School	298	8.7		K	4												
Farmington School District	Noah Wallace School	330	5.5		K	4												
Farmington School District	West District School	350	4.6		K	4												
Farmington School District	East Farms School	430	3.0		K	4												
Farmington School District	West Woods Upper Elementary School	687	6.8		5	6												
Farmington School District	Irving A. Robbins Middle School	652	5.4		7	8												
Franklin School District	Franklin Elementary School	233	9.4		PK	8												
Glastonbury School District	Burtonball Lane School	575	4.7		PK	5												
Glastonbury School District	Eastbury School	357	0.6		K	5												
Glastonbury School District	Hebron Avenue School	525	2.1		K	5												
Glastonbury School District	Hopewell School	542	2.4		K	5												
Glastonbury School District	Naubuc School	480	15.4		PK	5												
Glastonbury School District	Gideon Welles School	551	4.5		6	6												
Glastonbury School District	Nayaug Elementary School	675	1.6		PK	5												
Glastonbury School District	Smith Middle School	###	4.3		PK	6												
Granby School District	Frank M. Kearns Primary School	494	3.6		PK	2												
Granby School District	Wells Road Intermediate School	344	6.7		3	6												
Granby School District	Kelly Lane Intermediate School	363	6.3		3	6												
Granby School District	Granby Memorial Middle School	374	4.5		7	8												
Greenwich School District	Cos Cob School	407	4.9		PK	5												
Greenwich School District	Julian Curtiss School	327	22.0		K	5												
Greenwich School District	Glenville School	344	3.8		K	5												
Greenwich School District	Hamilton Avenue School	377	40.3		PK	5												
Greenwich School District	New Lebanon School	229	34.9		PK	5												
Greenwich School District	North Mianus School	454	0.9		K	5												
Greenwich School District	North Street School	515	0.8		PK	5												
Greenwich School District	Old Greenwich School	454	1.1		PK	5												
Greenwich School District	Riverside School	499	0.8		K	5												
Greenwich School District	Parkway School	332	1.5		PK	5												
Greenwich School District	International School At Dundee	372	5.9		K	5												
Greenwich School District	Central Middle School	713	8.1		6	8												
Greenwich School District	Eastern Middle School	725	2.3		6	8												
Greenwich School District	Western Middle School	527	20.5		6	8												
Greenwich School District	Greenwich School District	906	30.4		PK	5												
Griswold School District	Griswold Elementary School	439	26.9		6	8												
Groton School District	S. B. Butler School	317	9.8		PK	5												
Groton School District	Claude Chester School	353	42.5		PK	5												
Groton School District	Colonel Ledyard School	139	16.5		4	5												
Groton School District	Eastern Point School	497	54.1		PK	5												
Groton School District	Noank School	240	8.3		K	3												
Groton School District	Pleasant Valley School	429	35.4		PK	5												
Groton School District	Mary Morrisson School	282	29.1		PK	5												
Groton School District	Charles Barnum School	367	28.3		PK	5												
Groton School District	Fitch Middle School	455	43.5		6	8												
Groton School District	West Side Middle School	293	38.6		6	8												
Groton School District	Carl C. Cutler Middle School	376	3.2		6	8												
Groton School District	Guilford Lakes School	449	4.5		PK	4												
Guilford School District	Melissa Jones School	350	5.7		K	4												

District Name	School name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Range		Language Start Grade										
				Low	High	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name				
Guilford School District	Calvin Leete School	307	4.9	K	4											
Guilford School District	A. W. Cox School	347	4.0	K	4											
Guilford School District	A. Baldwin Middle School	608	5.3	5	6				6							
Guilford School District	E. C. Adams Middle School	600	4.0	7	8				7							
Hamden School District	Shepherd Glen School	330	58.2	K	6											
Hamden School District	Church Street School	382	61.8	PK	6											
Hamden School District	Dunbar Hill School	377	32.9	K	6											
Hamden School District	Helen Street School	343	45.4	K	6											
Hamden School District	Spring Glen School	319	25.1	K	6											
Hamden School District	Ridge Hill School	348	44.8	K	6											
Hamden School District	Bear Path School	464	11.9	K	6											
Hamden School District	West Woods School	494	10.1	K	6											
Hamden School District	Hamden Middle School	913	21.2	7	8				7							
Hampton School District	Hampton Elementary School	167	6.6	PK	6											
Hartford School District	Sand School	366	>95.0	PK	6											
Hartford School District	Barnard-Brown School	333	>95.0	PK	6											
Hartford School District	Batchelder School	578	>95.0	PK	8											
Hartford School District	Burns School	533	>95.0	PK	6											
Hartford School District	Dwight School	434	>95.0	PK	5											
Hartford School District	M. D. Fox Elementary School	824	>95.0	PK	5											
Hartford School District	Hooker School	403	>95.0	PK	8											
Hartford School District	Kennelly School	809	>95.0	PK	8											
Hartford School District	Kinsella Magnet School	517	>95.0	PK	8											
Hartford School District	McDonough School	441	>95.0	PK	6											
Hartford School District	Naylor School	564	>95.0	PK	8											
Hartford School District	Parkville Community School	596	>95.0	PK	6											
Hartford School District	M. L. King School	600	>95.0	PK	6											
Hartford School District	Rawson School	586	>95.0	PK	8											
Hartford School District	Twain School	282	>95.0	PK	6											
Hartford School District	Milner School	360	>95.0	PK	6											
Hartford School District	Noah Webster Micro Society School	620	>95.0	PK	8											
Hartford School District	West Middle School	768	>95.0	PK	8											
Hartford School District	Wish School	437	>95.0	PK	6											
Hartford School District	Burr School	537	>95.0	PK	8											
Hartford School District	Clark School	442	>95.0	PK	7											
Hartford School District	Annie-Fisher Multiple Intelligenc	560	>95.0	PK	8											
Hartford School District	Simpson-Waverly Classical Magnet	366	>95.0	PK	6											
Hartford School District	Dr. Ramon E. Betances School	403	>95.0	PK	6											
Hartford School District	Sanchez School	580	>95.0	PK	6											
Hartford School District	Moylan School	598	>95.0	PK	8											
Hartford School District	Breakthrough Magnet School	320	>95.0	PK	8								3			
Hartford School District	Fox Middle School	461	>95.0	7	8											
Hartford School District	Quirk Middle School	575	>95.0	7	8											
Hartford School District	Dr. Joseph Bellizzi Middle School	447	>95.0	6	8											
Hartford School District	Hartford Magnet Middle School	602	>95.0	6	8											
Hartford School District	Hartland Elementary School	235	>95.0	PK	8											
Hebron School District	Hebron Elementary School	697	0.9	PK	8											
Hebron School District	Gilead Hill School	507	5.0	PK	3											
Kent School District	Kent Center School	257	8.2	PK	8											
Killingly School District	Killingly Central School	455	36.3	K	4											



District Name	School Name	Enrollment	Pct. Eligible for		Grade Range		Language Start Grade										
			Free	Reduced Price Meals	Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name		
Middletown School District	Wesley School	336	30.7		K	5											
Middletown School District	Keigwin Middle School	356	31.5		6	6											
Middletown School District	Woodrow Wilson Middle School	700	31.0		7	8											
Milford School District	Calf Pen Meadow School	345	6.7		PK	5				7	7						
Milford School District	Meadowside School	358	22.3		K	5											
Milford School District	Orange Avenue School	497	8.2		PK	5											
Milford School District	Pumpkin Delight School	282	16.0		K	5											
Milford School District	Simon Lake School	379	23.2		PK	5											
Milford School District	Live Oaks School	349	7.7		K	5											
Milford School District	Mathewson School	493	5.7		1	5											
Milford School District	Orchard Hills School	439	10.0		PK	5											
Milford School District	J. F. Kennedy School	391	13.3		K	5											
Milford School District	East Shore Middle School	619	12.1		6	8				6	6						
Milford School District	Harborside Middle School	548	15.1		6	8				6	6						
Milford School District	West Shore Middle School	548	15.1		6	8				6	6						
Monroe School District	Monroe Elementary School	361	4.2		PK	4											
Monroe School District	Stepney Elementary School	513	3.9		K	4											
Monroe School District	Fawn Hollow Elementary School	598	1.8		K	4											
Monroe School District	Monroe School	679	3.5		5	6											
Monroe School District	Jockey Hollow School	668	3.0		7	8				7	7						
Monroe School District	Mohegan School	406	20.7		PK	5											
Monroe School District	Oakdale School	470	9.6		PK	5											
Monroe School District	Dr. Charles E. Murphy School	419	16.7		PK	5											
Monroe School District	Leonard J. Tyi Middle School	713	18.7		6	8				6	6						
Naugatuck School District	Central Avenue School	291	40.9		PK	4											
Naugatuck School District	Cross Street Intermediate School	400	30.3		5	6											
Naugatuck School District	Maple Hill School	435	22.1		PK	4											
Naugatuck School District	Hop Brook Intermediate School	384	42.2		5	6											
Naugatuck School District	Prospect Street School	338	29.9		K	4											
Naugatuck School District	Salem School	253	36.0		PK	4											
Naugatuck School District	Western School	262	31.3		PK	4											
Naugatuck School District	Andrew Avenue School	226	32.7		PK	4											
Naugatuck School District	City Hill Middle School	506	28.7		7	8				7	7						
Naugatuck School District	Hillside Middle School	301	33.6		7	8											
New Britain School District	Chamberlain School	582	66.8		K	5											
New Britain School District	Gaffney School	434	49.8		PK	5											
New Britain School District	Holmes School	421	59.6		PK	5											
New Britain School District	Jefferson School	410	72.2		K	5											
New Britain School District	Lincoln School	655	70.5		PK	5											
New Britain School District	Northend School	287	85.0		K	5											
New Britain School District	Diloreto Magnet School	657	64.5		PK	5											
New Britain School District	Smith Academy	671	79.4		K	5											
New Britain School District	Smith School	661	78.5		PK	5											
New Britain School District	Vance School	493	67.5		K	5											
New Britain School District	Roosevelt Middle School	541	74.5		6	8											
New Britain School District	Slade Middle School	697	69.3		6	8				6	6						
New Britain School District	Pulaski Middle School	820	67.2		6	8											
New Britain School District	House of Arts, Letters and Science	155	34.2		6	8											
New Britain School District	South School	520	0.0		PK	4											
New Britain School District	West School	526	0.0		PK	4											

District Name	School Name	Enroll- ment	Free/Reduced Price Meals	Pct. Eligible for	Grade Range		Language Start Grade												
					Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name				
New Canaan School District	East School	542	0.0		K	4													
New Canaan School District	Saxe Middle School	###	0.0		5	8													
New Fairfield School District	Consolidated School	664	4.5		PK	2			6	6	6								
New Fairfield School District	Meeting House Hill School	699	4.1		3	5													
New Fairfield School District	New Fairfield Middle School	743	5.1		6	8			6	6									
New Hartford School District	Bakerville Consolidated School	160	2.5		K	2													
New Hartford School District	New Hartford Elementary School	106	4.7		PK	2													
New Haven School District	Ann Antolini School	347	5.5		3	6			4										
New Haven School District	Barnard Environmental Magnet School	453	67.1		PK	7													
New Haven School District	Beecher School	409	68.2		K	8													
New Haven School District	Katherine Brennan School	206	81.1		3	8			7										
New Haven School District	Clarence Rogers School	135	77.0		K	2													
New Haven School District	Clinton Avenue School	512	79.9		K	7													
New Haven School District	Hill Central Music Academy	433	77.8		PK	8			7										
New Haven School District	John S. Martinez School	633	75.0		PK	8			7										
New Haven School District	Davis 21st Century Magnet Element	361	72.3		PK	5													
New Haven School District	Ross/Woodward School	635	61.7		PK	8													
New Haven School District	Timothy Dwight School	298	87.6		K	4													
New Haven School District	Edgewood School	448	64.5		K	8													
New Haven School District	John C. Daniels	489	89.4		PK	7													
New Haven School District	Nathan Hale School	562	62.3		PK	8													
New Haven School District	Troup Middle School	349	89.7		K	10			7										
New Haven School District	Fair Haven School	546	72.9		K	8			6										
New Haven School District	Benjamin Jepson Magnet School	459	54.7		PK	8			7										
New Haven School District	Lincoln-Bassett School	364	73.9		PK	8			7										
New Haven School District	Vincent E. Mauro Elementary Math,	410	84.9		PK	6													
New Haven School District	Truman School	620	78.4		PK	8			7										
New Haven School District	King/Robinson Magnet School	389	75.1		PK	8													
New Haven School District	Conte/West Hills Magnet School	642	77.4		K	8													
New Haven School District	Wexler/Grant Community School	449	80.2		PK	8													
New Haven School District	Worthington Hooker School	389	32.1		K	8			7										
New Haven School District	Christopher Columbus Academy	285	86.0		K	6													
New Haven School District	Clemente Leadership Academy	449	90.2		K	8			7										
New Haven School District	Bishop Woods School	298	75.2		K	6													
New Haven School District	East Rock Global Studies Magnet S	613	83.5		PK	8			7										
New Haven School District	Celentano School	584	75.5		PK	8			7										
New Haven School District	Microsociety Magnet School	207	73.4		PK	8			7										
New Haven School District	Urban Youth Center Middle School	34	67.6		6	8													
New Haven School District	Sheridan Communications and Techn	249	73.9		5	8			7										
New Haven School District	Betsy Ross Arts Magnet School	488	71.5		5	8			6										
Newington School District	Elizabeth Green School	313	16.9		PK	4													
Newington School District	Anna Reynolds School	440	18.4		PK	4													
Newington School District	Ruth Chaffee School	388	17.8		PK	4													
Newington School District	John Paterson School	455	15.2		PK	4													
Newington School District	Martin Kellogg Middle School	666	20.0		5	8													
New London School District	John Wallace Middle School	758	12.0		5	8			6										
New London School District	Harbor School	392	70.9		PK	5													
New London School District	Jennings School	350	84.9		PK	5													
New London School District	Winthrop School	316	80.1		K	5													
New London School District	Nathan Hale School	371	62.0		PK	5													

District Name	School Name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Range			Language Start Grade										
				Low	High	PK	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name		
New London School District	Bennie Dover Jackson Middle School	627	73.8	PK	8												
New London School District	Dual Language Arts Academy/La Aca	31	>95.0	6	6												
New Milford School District	Hill And Plain School	482	10.6	PK	3												
New Milford School District	John Pettibone School	490	12.2	PK	3												
New Milford School District	Northville Elementary School	547	5.7	PK	3												
New Milford School District	Sarah Noble Intermediate School	###	12.4	4	6												
New Milford School District	Schaghticoke Middle School	782	11.5	7	8		7	7	7								
Newtown School District	Hawley Elementary School	418	2.2	K	4												
Newtown School District	Sandy Hook Elementary School	639	3.6	K	4												
Newtown School District	Middle Gate Elementary School	531	3.4	K	4												
Newtown School District	Head O'Meadow Elementary School	443	2.3	K	4												
Newtown School District	Reed Intermediate School	886	3.3	5	6												
Newtown School District	Newtown Middle School	930	3.3	7	8		7	7									
Norfolk School District	Borelle Elementary School	164	11.0	PK	6		2										
North Branford School District	Jerome Harrison School	355	9.9	K	3												
North Branford School District	Stanley T. Williams School	269	6.3	PK	2												
North Branford School District	Totoket Valley Elementary School	508	10.6	3	5												
North Branford School District	North Branford Intermediate School	570	12.8	6	8		8	8									
North Canaan School District	North Canaan Elementary School	359	17.8	PK	8		6										
North Haven School District	Montwese Elementary School	461	9.3	PK	5												
North Haven School District	Ridge Road Elementary School	435	6.9	PK	5												
North Haven School District	Green Acres Elementary School	437	5.0	PK	5												
North Haven School District	Clintonville Elementary School	373	10.2	PK	5												
North Haven School District	North Haven Middle School	917	8.0	6	8		6	6									
North Stonington School District	North Stonington Elementary School	373	18.2	PK	5												
North Stonington School District	Wheeler Middle School	187	17.6	6	8		7										
Norwalk School District	Brookside Elementary School	402	44.0	PK	5												
Norwalk School District	Columbus Elementary School	356	20.8	K	5												
Norwalk School District	Cranbury Elementary School	464	28.4	PK	5												
Norwalk School District	Jefferson Elementary School	494	43.3	K	5												
Norwalk School District	Kendall Elementary School	480	57.1	PK	5												
Norwalk School District	Rowayton School	424	25.7	K	5												
Norwalk School District	Tracey School	410	32.9	PK	5												
Norwalk School District	Fox Run Elementary School	448	27.7	PK	5												
Norwalk School District	Naramake Elementary School	392	21.4	PK	5												
Norwalk School District	Marvin Elementary School	465	37.8	PK	5												
Norwalk School District	Silvermine Elementary School	371	38.8	K	5												
Norwalk School District	Wolfpit School	305	34.4	PK	5												
Norwalk School District	Nathan Hale Middle School	506	25.1	6	8		6	6									
Norwalk School District	Ponus Ridge Middle School	642	32.6	6	8		6	6									
Norwalk School District	West Rocks Middle School	693	30.4	6	8		6	6									
Norwalk School District	Roton Middle School	306	30.6	6	8		6	6									
Norwich School District	Bishop School	172	69.2	PK	5												
Norwich School District	Greeneville School	342	76.6	K	5												
Norwich School District	Samuel Huntington School	398	42.2	PK	5												
Norwich School District	John B. Stanton School	282	53.2	PK	5												
Norwich School District	Wequonnoc School	255	69.4	PK	5												
Norwich School District	Thomas W. Mahan School	279	43.0	PK	5												
Norwich School District	Veterans' Memorial School	278	68.3	PK	5												
Norwich School District	Uncas School	193	67.9	K	5												

District Name	School Name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Range		Language Start Grade													
				Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name					
Norwich School District	John M. Moriarty School	369	43.4	PK	5														
Norwich School District	Kelly Middle School	746	46.4	6	8			6	6										
Norwich School District	Teachers Memorial Middle School	540	53.5	6	8			6	6										
Old Saybrook School District	Kathleen E. Goodwin School	477	11.1	PK	3			K	K										
Old Saybrook School District	Old Saybrook Middle School	650	8.2	4	8			4	4										
Orange School District	Mary L. Tracy School	197	2.5	PK	K														
Orange School District	Race Brook School	416	3.1	1	6			3											
Orange School District	Turkey Hill School	319	1.3	1	6			3											
Orange School District	Peck Place School	439	4.1	1	6			3											
Oxford School District	Oxford Center School	499	6.4	3	5														
Oxford School District	Quaker Farms School	564	5.5	PK	2														
Oxford School District	Great Oak School	520	7.5	6	8			6											
Plainfield School District	Moosup Elementary School	301	34.9	1	3														
Plainfield School District	Plainfield Memorial School	386	37.8	4	5														
Plainfield School District	Shepard Hill Elementary School	321	36.8	1	3														
Plainfield School District	Early Childhood Center	265	17.4	PK	K														
Plainfield School District	Plainfield Central Middle School	572	29.0	6	8														
Plainville School District	Linden Street School	388	22.4	K	5														
Plainville School District	Frank T. Wheeler School	328	18.6	K	5														
Plainville School District	Louis Toffolon School	330	11.2	K	5														
Plainville School District	Middle School of Plainville	622	22.5	6	8			8	8										
Plymouth School District	Main Street School	181	24.9	3	5														
Plymouth School District	Plymouth Center School	506	9.9	PK	5														
Plymouth School District	Prospect Street School	173	25.4	PK	5														
Plymouth School District	Harry S. Fisher School	484	18.0	6	8			8											
Pomfret School District	Pomfret Community School	539	8.2	PK	8			7											
Portland School District	Valley View School	369	8.4	PK	2														
Portland School District	Guildersleeve School	240	9.2	3	4														
Portland School District	Brownstone Intermediate School	239	10.0	5	6														
Portland School District	Portland Middle School	215	14.4	7	8			7	7										
Preston School District	Preston Veterans Memorial School	312	10.9	PK	5														
Putnam School District	Preston Plains School	192	12.0	6	8			7											
Putnam School District	Putnam Elementary School	629	49.1	PK	5														
Putnam School District	Punam Middle School	284	44.0	6	8														
Redding School District	Redding Elementary School	734	0.8	PK	4				7										
Redding School District	John Read Middle School	574	1.4	PK	5			5	5										
Ridgefield School District	Veterans Park Elementary School	341	2.1	PK	5														
Ridgefield School District	Ridgebury Elementary School	465	0.0	PK	5														
Ridgefield School District	Farmingville Elementary School	383	0.3	PK	5														
Ridgefield School District	Scotland Elementary School	388	1.3	PK	5														
Ridgefield School District	Branchville Elementary School	438	1.1	PK	5														
Ridgefield School District	Barlow Mountain Elementary School	441	0.7	PK	5														
Ridgefield School District	East Ridge Middle School	743	1.5	6	8			6	6										
Ridgefield School District	Scotts Ridge Middle School	577	0.7	6	8			6	6										
Rocky Hill School District	Dr. Oran A. Moser School	89	16.9	K	2														
Rocky Hill School District	Myrtle H. Stevens School	520	14.2	PK	5														
Rocky Hill School District	West Hill School	631	2.5	PK	5														
Rocky Hill School District	Albert D. Griswold Middle School	611	7.5	6	8			7	7										
Salem School District	Salem Elementary School	506	5.7	PK	8			5	5										
Salisbury School District	Salisbury Central School	307	8.1	PK	8														

District Name	School name	Enrollment	Pet. Eligible for		Grade Range		Language Start Grade										
			Free/Reduced Price Meals	Meals	Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name		
Scotland School District	Scotland Elementary School	190	23.2		PK	6											
Seymour School District	Bungy School	562	9.8		PK	5											
Seymour School District	Anna L. Lopresti School	339	28.0		K	5											
Seymour School District	Paul Chatfield School	283	10.2		PK	5											
Seymour School District	Seymour Middle School	558	14.3		6	8											
Sharon School District	Sharon Center School	219	13.7		PK	8											
Shelton School District	LaFayette School	386	44.0		PK	6		6									
Shelton School District	Elizabeth Shelton School	553	4.7		PK	6											
Shelton School District	Sunnyside School	379	15.8		PK	6											
Shelton School District	Long Hill School	609	9.5		PK	6											
Shelton School District	Mohegan School	629	2.2		K	6											
Shelton School District	Booth Hill School	494	5.7		K	6											
Shelton School District	Intermediate School	907	13.3		7	8		8									
Sherman School District	Sherman School	456	2.2		PK	8		6									
Simsbury School District	Central School	440	2.7		PK	6		6									
Simsbury School District	Tariffville School	258	7.4		1	6		6									
Simsbury School District	Tootin' Hills School	566	0.9		PK	6		6									
Simsbury School District	Latimer Lane School	532	3.8		1	6		6									
Simsbury School District	Squadron Line School	802	3.9		K	6		6									
Simsbury School District	Henry James Memorial School	816	4.2		7	8		7		8							
Somers School District	Somers Elementary School	730	5.5		PK	5		1									
Somers School District	Mabelle B. Avery Middle School	427	4.9		6	8											8
Southington School District	Hatton School	430	7.2		PK	5				6							
Southington School District	Plantsville School	215	6.0		K	5											
Southington School District	South End School	207	3.4		K	5											
Southington School District	Strong School	465	8.0		K	5											
Southington School District	Thalberg School	430	9.8		K	5											
Southington School District	Flanders School	334	17.7		K	5											
Southington School District	Urban T. Kelley School	414	2.2		PK	5											
Southington School District	Derynoski Elementary School	702	11.1		K	5											
Southington School District	Joseph A. Depaolo Middle School	735	10.1		6	8			7								
Southington School District	John F. Kennedy Middle School	797	8.0		6	8			7								
South Windsor School District	Philip R. Smith School	436	3.0		PK	5											
South Windsor School District	Pleasant Valley School	448	8.5		PK	5											
South Windsor School District	Wapping Elementary School	310	5.8		K	5											
South Windsor School District	Orchard Hill School	507	4.5		PK	5											
South Windsor School District	Eli Terry School	433	4.6		PK	5											
South Windsor School District	Timothy Edwards School	###	5.2		6	8											
Sprague School District	Sayles Elementary School	351	28.5		PK	8											
Stafford School District	Staffordville School	178	17.4		PK	1											6
Stafford School District	West Stafford School	203	27.1		PK	1											
Stafford School District	Stafford Elementary School	526	23.4		2	5											
Stafford School District	Stafford Middle School	477	24.5		6	8											
Stafford School District	K. T. Murphy School	548	60.0		K	5											
Stafford School District	Newfield School	632	27.5		K	5											
Stafford School District	Rogers School	525	59.8		K	5											
Stafford School District	Roxbury School	654	36.4		K	5											
Stafford School District	Springdale School	566	46.3		K	5											
Stafford School District	Julia A. Stark School	601	53.4		K	5											
Stafford School District	Westover School	638	31.2		PK	5											

District Name	School Name	Enrollment	Pet. Eligible for Free/Reduced Price Meals	Grade Range		Language Start Grade												
				Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name				
Stamford School District	Northeast School	814	37.2	K	5													
Stamford School District	Toquam Magnet School	453	33.1	K	5													
Stamford School District	Davenport Ridge School	515	47.6	K	5													
Stamford School District	Stillmeadow School	600	39.7	PK	5													
Stamford School District	Hart School	420	59.8	K	5													
Stamford School District	Dolan School	625	45.4	6	8			7	7									
Stamford School District	Turn of River School	609	42.7	6	8			7	7									
Stamford School District	Cloonan School	594	41.9	6	8			7	7									
Stamford School District	Scotfield Middle School	604	31.6	6	8			7	7									
Stamford School District	Rippowam Middle School	807	45.5	6	8			6	6									
Stamford School District	Sterling Community School	503	26.4	PK	8			7										
Stamford School District	West Broad Street School	175	14.3	PK	4													
Stamford School District	Deans Mill School	529	4.3	PK	5													
Stamford School District	West Vine Street School	236	8.9	K	2													
Stamford School District	Pawcatuck Middle School	332	18.1	5	8			7	7									
Stamford School District	Mystic Middle School	435	6.4	5	8			7	7									
Stamford School District	Chapel School	505	29.5	K	6			7										
Stamford School District	Franklin School	396	63.4	K	6													
Stamford School District	Lordship School	225	43.6	K	6													
Stamford School District	Nichols School	430	36.0	K	6													
Stamford School District	Second Hill Lane School	688	34.4	PK	6													
Stamford School District	Eli Whitney School	516	26.6	K	6													
Stamford School District	Wilcoxson School	398	27.6	K	6													
Stamford School District	Stratford Academy	720	32.8	K	6													
Stamford School District	David Wooster Middle School	570	36.7	7	8			7	7									
Stamford School District	Harry B. Flood Middle School	569	33.7	7	8			7	7									
Suffield School District	McAlister Intermediate School	568	7.2	3	6			3										
Suffield School District	A. Ward Spaulding School	529	1.9	PK	2													
Suffield School District	Suffield Middle School	632	6.8	6	11			7										
Thomaston School District	Black Rock School	389	15.9	PK	3													
Thomaston School District	Thomaston Center School	294	12.6	4	6													
Thompson School District	Mary R. Fisher Elementary School	576	26.6	PK	12													
Tolland School District	Thompson Middle School	503	29.4	5	8			7										
Tolland School District	Birch Grove Primary School	760	2.4	PK	2													
Tolland School District	Parker Memorial School	507	3.4	3	4													
Torrington School District	Tolland Middle School	###	4.4	5	8			7										
Torrington School District	East School	480	17.5	K	5													
Torrington School District	Forbes School	383	36.3	K	5													
Torrington School District	Southwest School	305	39.3	K	5													
Torrington School District	Torrington School	683	22.8	PK	5													
Torrington School District	Vogel-Wetmore School	448	59.6	PK	5													
Trumbull School District	Torrington Middle School	###	33.5	6	9			7										
Trumbull School District	Booth Hill School	513	3.1	K	5													
Trumbull School District	Middlebrook School	472	5.3	K	5													
Trumbull School District	Jane Ryan School	422	2.6	K	5													
Trumbull School District	Danteis Farm School	512	1.0	K	5													
Trumbull School District	Tashua School	461	0.9	K	5													
Trumbull School District	Frenchtown Elementary School	592	4.2	PK	5													
Trumbull School District	Madison Middle School	877	4.0	6	8			6	6									
Trumbull School District	Hillcrest Middle School	743	3.9	6	8			6	6									

District Name	School Name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Ranges		Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name
				Low	High									
Vernon School District	Union Elementary School	72	4.2	K	8									
Vernon School District	Lake Street School	236	4.7	K	5									
Vernon School District	Maple Street School	339	59.0	K	6									
Vernon School District	Northeast School	312	42.0	K	5									
Vernon School District	Skinner Road School	327	41.3	PK	5									
Vernon School District	Center Road School	449	15.8	PK	5									
Vernon School District	Vernon Center Middle School	819	28.3	6	10	7	7							
Voluntown School District	Voluntown Elementary School	309	17.5	PK	8									
Wallingford School District	Moses Y. Beach School	333	17.7	PK	5									
Wallingford School District	Highland School	333	3.3	K	5									
Wallingford School District	Parker Farms School	352	11.9	PK	5									
Wallingford School District	Rock Hill School	347	4.9	K	5									
Wallingford School District	Yalesville School	533	4.7	K	5									
Wallingford School District	Everts C. Stevens School	405	18.0	PK	5									
Wallingford School District	Cook Hill School	397	2.3	PK	5									
Wallingford School District	Pond Hill School	328	5.2	K	5									
Wallingford School District	Dag Hammarskjold School	743	8.7	6	8	6	6							
Wallingford School District	James H. Moran Middle School	845	8.5	6	8	6	6							
Waterbury School District	Barnard School	270	85.6	K	5									
Waterbury School District	Bucks Hill School	585	86.3	PK	5									
Waterbury School District	Bunker Hill School	519	83.0	PK	5									
Waterbury School District	H. S. Chase School	798	77.8	PK	5									
Waterbury School District	Wendell L. Cross School	349	72.5	PK	5									
Waterbury School District	Driggs School	550	92.7	PK	5									
Waterbury School District	Brooklyn Elementary School	229	85.6	K	5									
Waterbury School District	Margaret M. Generali Elementary S	563	72.8	K	7									
Waterbury School District	Hopeville School	465	88.2	PK	5									
Waterbury School District	F. J. Kingsbury School	495	81.4	PK	5									
Waterbury School District	Sprague School	488	84.2	PK	5									
Waterbury School District	B. W. Tinker School	574	67.8	PK	5									
Waterbury School District	Walsh School	551	94.9	PK	5									
Waterbury School District	Washington School	313	88.2	PK	5									
Waterbury School District	Gilmartin School	239	74.5	PK	5									
Waterbury School District	Carrington School	515	74.4	K	5									
Waterbury School District	Regan School	313	77.3	K	5									
Waterbury School District	Maloney Interdistrict Magnet Scho	593	37.4	PK	5									
Waterbury School District	Woodrow Wilson School	357	38.8	PK	5									
Waterbury School District	Rotella Interdistrict Magnet Scho	614	38.4	PK	5									
Waterbury School District	Waterbury Arts Magnet School (Mid	313	39.9	6	8	6	6							
Waterbury School District	Michael F. Wallace Middle School	###	75.1	6	8	6	6							
Waterbury School District	West Side Middle School	###	79.1	6	8	6	6							
Waterbury School District	North End Middle School	###	73.0	6	8	6	6							
Waterford School District	Cohanzie Elementary School	387	11.4	K	5									
Waterford School District	Great Neck Elementary School	280	12.5	K	5									
Waterford School District	Southwest Elementary School	236	9.3	K	5									
Waterford School District	Oswegatchie Elementary School	286	7.7	K	5									
Waterford School District	Clark Lane Middle School	730	10.3	6	8	6	6							
Watertown School District	John Trumbull Primary School	798	9.1	PK	2									
Watertown School District	Fletcher W. Judson School	380	11.8	3	5									
Watertown School District	Polk School	356	16.6	3	5									

District Name	School Name	Enrollment	Free/Reduced Price Meals	Pct. Eligible for	Grade Range		Spanish	French	Latin	Language Start Grade							
					Low	High				Italian	Japanese	Chinese	Other	Other Language Name			
Watertown School District	Hemlinway Park School	272	14.7		6	6											
Watertown School District	Swift Middle School	602	13.3		7	8	8	8									
Watertown School District	Daisy Ingraham School	356	11.2		PK	4	3	3									
Westbrook School District	Westbrook Middle School	314	7.3		5	8	5	5	6								
West Hartford School District	Braeburn School	440	8.2		K	5	3	3									
West Hartford School District	Bugbee School	384	6.0		K	5	K	K									
West Hartford School District	Charter Oak School	341	40.8		PK	5	1	1									
West Hartford School District	Duffy School	557	6.6		K	5	K	K									
West Hartford School District	Morley School	367	5.7		K	5	K	K									
West Hartford School District	Norfeldt School	445	3.1		K	5	3	3	01	05							
West Hartford School District	Webster Hill School	436	21.6		K	5	3	3									
West Hartford School District	Whiting Lane School	504	16.7		PK	5	3	3									
West Hartford School District	Wolcott School	470	15.1		K	5	K	K									
West Hartford School District	Ailken School	457	6.8		PK	5	3	3									
West Hartford School District	King Philip Middle School	380	38.2		PK	5	K	K									
West Hartford School District	Sedgwick Middle School	907	13.1		5	9	6	6	6	6							
West Hartford School District	Bristow Middle School	865	20.7		6	8	6	6	6	6							
West Haven School District	Forest School	409	12.2		6	8	6	6	6	6							
West Haven School District	Seth G. Haley School	442	59.3		K	5	5	5									
West Haven School District	Edith E. MacKrell School	527	28.3		PK	5	5	5									
West Haven School District	Alma E. Pagels School	383	34.2		PK	5	5	5									
West Haven School District	Clarence E. Thompson School	356	30.9		PK	5	5	5									
West Haven School District	Washington School	353	68.6		K	5	5	5									
West Haven School District	Anna V. Molloy School	397	51.4		K	5	5	5									
West Haven School District	Savin Rock Community School	263	48.7		K	5	5	5									
West Haven School District	Harry M. Bailey Middle School	450	61.6		K	5	5	5									
West Haven School District	May V. Carrigan Middle School	709	31.6		6	8	8	8	8	8							
West Haven School District	Hurlbutt Elementary School	741	55.2		6	8	8	8	8	8							
Weston School District	Weston Intermediate School	595	0.8		PK	7	7	7									
Weston School District	Weston Middle School	579	0.7		3	5	3	3									
Westport School District	Coletown Elementary School	583	0.5		6	8	6	6	7								
Westport School District	Green's Farms School	460	1.3		K	5	K	K									
Westport School District	King's Highway Elementary School	495	2.0		K	5	K	K									
Westport School District	Long Lois School	495	1.6		K	5	K	K									
Westport School District	Saugatuck Elementary School	594	1.3		K	5	K	K									
Westport School District	Bedford Middle School	506	0.8		K	5	K	K									
Westport School District	Coletown Middle School	838	1.6		6	8	6	6	6	6							
Westport School District	Emerson-Williams School	503	1.8		6	8	6	6	6	6							
Westport School District	Alfred W. Hammer School	461	9.8		PK	6	PK	PK									
Westport School District	Charles Wright School	377	14.6		PK	6	PK	PK									
Westport School District	Highcrest School	306	16.3		PK	6	PK	PK									
Westport School District	Samuel B. Webb Elementary School	442	9.3		PK	6	PK	PK									
Westport School District	Silas Deane Middle School	449	9.8		PK	6	PK	PK									
Westport School District	Center School	564	13.1		7	8	7	7	7	7							
Westport School District	Hall Memorial School	248	14.9		PK	3	PK	PK									
Westport School District	Tilford W. Miller School	351	8.0		4	8	4	4	4	4							
Westport School District	Ina E. Driscoll School	510	0.2		PK	2	PK	PK									
Westport School District	Cider Mill School	###	0.4		PK	2	PK	PK									
Westport School District	Middlebrook School	###	0.6		3	5	3	3	3	3							
Westport School District		###	0.6		6	8	6	6	6	6							

District Name	School Name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Range		Language Start Grade												
				Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name				
Winchester School District	Mary P. Hinsdale School	372	39.8	K	6													
Winchester School District	Batcheller Elementary School	329	29.8	PK	5													
Winchester School District	Pearson Middle School	342	37.1	6	11		6											
Windham School District	Natchaug School	310	79.0	K	5													
Windham School District	North Windham School	445	67.0	K	4													
Windham School District	Windham Center School	259	67.6	K	4													
Windham School District	W. B. Sweeney School	342	77.8	K	4													
Windham School District	Windham Middle School	960	71.0	5	8													
Windsor School District	Clover Street School	281	31.7	1	5													
Windsor School District	Poquonock Elementary School	312	15.1	1	5													
Windsor School District	John F. Kennedy School	395	31.1	1	5													
Windsor School District	Oliver Ellsworth School	450	30.4	1	5													
Windsor School District	Roger Wolcott Early Child Center	256	16.0	PK	K													
Windsor School District	Sage Park Middle School	921	28.4	6	8		7		7									
Windsor Locks School District	North Street School	410	21.7	PK	2													
Windsor Locks School District	South Elementary School	429	32.4	3	5		3											
Windsor Locks School District	Windsor Locks Middle School	405	24.2	6	8		7		7									
Wolcott School District	Frisbie School	394	18.3	K	5													
Wolcott School District	Wakelee School	455	11.4	K	5													
Wolcott School District	Alcott School	394	12.9	PK	5													
Wolcott School District	Tyrrell Middle School	758	13.2	6	8													
Woodbridge School District	Beecher Road Primary School	319	4.4	PK	2													
Woodbridge School District	Beecher Road Intermediate School	467	3.0	3	6													
Woodstock School District	Woodstock Elementary School	497	8.9	PK	4		3		3									
Woodstock School District	Woodstock Middle School	448	10.0	5	8		8											
Regional School District 04	John Winthrop Middle School	338	6.8	7	8		7		7									
Regional School District 05	Amity Middle School: Bethany	403	2.7	7	8		7		7									
Regional School District 05	Amity Middle School: Orange	415	1.0	7	8		7		7									
Regional School District 06	Goshen Center School	218	3.7	K	6													
Regional School District 06	James Morris School	211	9.5	K	6													
Regional School District 06	Warren Elementary School	108	7.4	K	6													
Regional School District 07	Northwestern Regional Middle School	351	4.3	7	8		7		7									
Regional School District 08	RHAM Middle School	644	3.3	7	8		7		7									
Regional School District 10	Lake Garda Elementary School	605	3.8	PK	4		3		3									
Regional School District 10	Harwinton Consolidated School	532	3.8	PK	4		3		3									
Regional School District 10	Har-Bur Middle School	929	2.5	5	8		5		7									
Regional School District 12	The Burnham School	106	0.0	K	5		K											
Regional School District 12	Booth Free School	129	0.8	K	5		K											
Regional School District 12	Washington Primary School	176	5.7	K	5		K											
Regional School District 12	Shepaug Valley Middle School	232	6.5	6	8		6		7									
Regional School District 13	Frederick Brewster School	302	4.6	PK	2													
Regional School District 13	Francis E. Korn School	214	10.7	3	4													
Regional School District 13	Middlefield Memorial School	349	6.0	5	6													
Regional School District 13	John Lyman School	332	3.9	K	4													
Regional School District 13	Frank Ward Strong School	360	4.4	7	8		7		7									
Regional School District 14	Bethlehem Elementary School	380	5.8	PK	2													
Regional School District 14	Mitchell Elementary School	444	8.3	3	5													
Regional School District 14	Woodbury Middle School	498	4.6	6	8		6		6									
Regional School District 15	Gainfield Elementary School	467	2.1	K	5													
Regional School District 15	Pomperaug School	540	1.7	K	5													

06

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8

District Name	School Name	Enrollment	Pct. Eligible for Free/Reduced Price Meals	Grade Range		Language Start Grade												
				Low	High	Spanish	French	Latin	German	Italian	Japanese	Chinese	Other	Other Language Name				
Regional School District 15	Middlebury Elementary School	456	3.5	K	5													
Regional School District 15	Long Meadow Elementary School	616	1.6	PK	5													
Regional School District 15	Rochambeau Middle School	555	1.3	6	8													
Regional School District 15	Memorial Middle School	521	3.5	6	8													
Regional School District 16	Laurel Ledger School	494	5.7	PK	5													
Regional School District 16	Community School	247	6.9	4	5													
Regional School District 16	Algonquin School	497	6.4	PK	3													
Regional School District 16	Long River Middle School	631	10.1	6	8													
Regional School District 17	Haddam Elementary School	265	5.7	K	4													
Regional School District 17	Burr District Elementary School	279	3.2	PK	4													
Regional School District 17	Killingworth Elementary School	452	2.7	K	4													
Regional School District 17	Haddam-Killingworth Middle School	840	4.9	5	8													
Regional School District 18	Lyme Consolidated School	162	3.1	K	5													
Regional School District 18	Mill Creek School	295	4.1	PK	2													
Regional School District 18	Center School	233	3.4	3	5													
Regional School District 18	Lyme-Old Lyme Middle School	372	3.8	6	8													
Capitol Region Education Co	East Hartford/Glastonbury Magnet	257	14.4	K	5													
Capitol Region Education Co	University of Hartford Multiple I	406	30.0	PK	5													
Capitol Region Education Co	Montessori Magnet School	331	28.7	PK	6													
Capitol Region Education Co	Two Rivers Middle Magnet School	581	30.3	6	8													
Cooperative Educational Ser	Six-Six Magnet School	433	31.6	PK	8													
Area Cooperative Educationa	Wintgreen Interdistrict Magnet	605	27.8	K	8													
Area Cooperative Educationa	Thomas Edison Magnet Middle Schoo	752	35.5	6	8													
Learn	Multicultural Magnet School	528	45.1	K	5													
Learn	The Friendship School	515	38.1	PK	K													
Jumoke Academy District	Jumoke Academy	369	>95.0	PK	8													
Odyssey Community School Di	Odyssey Community School	177	20.9	4	8													
Integrated Day Charter Scho	Integrated Day Charter School	330	22.4	PK	8													
Interdistrict School for Ar	Interdistrict School For Arts And	181	60.2	6	8													
Side By Side Community Scho	Side By Side Community School	230	40.0	PK	8													
Trailblazers Academy Distri	Trailblazers Academy	150	62.0	6	8													
Amistad Academy District	Amistad Academy	547	56.7	K	10													
New Beginnings Inc., Family	New Beginnings Inc., Family Acade	361	54.0	K	8													
Elm City College Preparato	Elm City College Preparatory Scho	476	72.5	K	8													
Park City Prep Charter Scho	Park City Prep Charter School	206	53.9	6	8													
Bridgeport Achievement Firs	Achievement First Bridgeport Acad	85	71.8	5	5													
Highville Mustard Seed Char	Highville Mustard Seed Charter Sc	277	48.0	PK	7													

**K-6 WORLD LANGUAGE**  
(Spanish, 60 minutes/week)

**COSTS**

3.7 FTE @ \$60,000	\$222,000
Books, Instructional Supplies	\$20,000
Curriculum Writing, Professional Development	\$12,000
TOTAL	<u>\$254,000</u>

**FUNDING**

Reduction of 2.0 FTE Para-educators	\$40,000
Choice Revenue	\$182,000
Energy Savings	\$32,000
TOTAL	<u>\$254,000</u>

**APPENDIX F****"A Case for Foreign Languages:  
The Glastonbury Language Program"**

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Brown, Christine. 1995. "The Case for Foreign Languages. The Glastonbury Language Program." *Learning Languages: The Journal of the National Network for Early Language Learning*, 2, 2, 1997, (3-8), as excerpted from S. Soper, ed. 1995. *Perspective*. Washington, D.C.: Council for Basic Education 7 (2). Reprinted with permission from both sources.

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## “A Case For Foreign Languages The Glastonbury Language Program”

By Christine Brown  
Director of Foreign Languages  
Glastonbury Public Schools  
Glastonbury, Connecticut

Since the 1950s in Glastonbury, Connecticut, all students have studied at least one foreign language beginning in elementary school. Although there have been many national revolutions within language pedagogy since this program was established, the course offerings in Glastonbury are nearly the same ones that were in place in 1957, when the program began.

All second, third, fourth, and fifth grade students study Spanish, and in grade six, they can add the study of French. In grade seven, students may add the study of Russian and in grade nine, the study of Latin. Recently instituted is the opportunity to begin Japanese in kindergarten at a magnet school operated with East Hartford, Connecticut. At Glastonbury High School, Japanese is also offered through two-way interactive television with area high schools and Manchester Community-Technical College.

Over the last 40 years, the students who graduated from Glastonbury High School have gone on to prominent positions in society. Many report that the special opportunity they had in the Glastonbury public school system afforded them entree to a knowledge about other people, as well as interesting vocations and avocations that they otherwise would not have had the opportunity to select. Former graduates work in every sector of business and industry. Some have been drawn to the diplomatic and intelligence communities, and still others have served in the Armed Services. In the last 10 years, students of Russian have had a unique opportunity to use their skills in many joint ventures in the former Soviet Union and Eastern Europe.

How is it that this community has sustained and grown an excellent foreign language program since 1957? In many ways, Glastonbury is an average community. Its population is just under 28,000, its income level is middle class, average class size is 21, and average per-pupil expenditure is \$6,423. Only 1% of its students is identified as “gifted and talented.” The following report, adapted and reprinted with permission from the Council for Basic Education (Brown, 1995), explores the answer to this question.

### Why a Long Sequence of Study?

What are the *essential elements* that the public must perceive in order for them to support a language program over such a long period of time? Conversations with townspeople and qualitative research with students and graduates indicate that the single greatest ingredient for maintaining the supportive attitude about the language program is that students who graduate from the program are able to use their language knowledge in later life. Success breeds success. The momentum to maintain the language program and expand it has come from a community whose children and grandchildren have returned to Glastonbury, talking about the tremendous preparation they had in the program to think, read, write, and speak in another language.

Why is it that Glastonbury students can speak and use a language while students from some other school districts find that they really can't? It isn't as simple as the airline magazines would have one believe. Just by playing a tape recorder under the bed at night, one is not going to miraculously absorb Serbo-Croatian or even French. The United States Foreign Service and Department of State have 25 years of research on the length of time it takes Americans to become proficient in another language. The ability to function beyond the tourist level in a language—to be able to communicate with a business partner or to negotiate a contract—takes thousands of hours of contact in French or Spanish and four to five times that much time in Russian, Mandarin, Japanese, or Arabic. It is no wonder that the average high school students who have had only about 200 contact hours (usually in a European language) can't say much by the time they graduate from high school.

Students graduating from schools where they *do* have the opportunity to study a language over a long period of time recognize that their skills have gotten better and better as they have studied the language. Although they might reflect on their elementary experience as being simplistic, they can say with some certainty that without that experience, they would have had no foundation upon which to build in junior and senior high school. When Glastonbury students go on to college, many place into third year courses and some place out of the undergraduate language sequence altogether. These are not all academically remarkable students. These are students who have had the opportunity to cultivate and nurture their language skills in a sequential fashion beginning in primary school.

*"Studying Russian in grammar school was more than just another class for me. Literally my entire life has been shaped by that study. To highlight a few of the direct results: I spent a month in Ukraine, USSR, where I made friends with whom I still keep in touch. Four years later, I became interested in Georgetown University because of their Russian program and was accepted because of the experience I had already acquired in the language. I have spent the last nine months studying in Russia and have an internship at TIME maga-zine in Moscow."*

**Erin Doyle**  
Graduate of Glastonbury High School

## Obstacles

If this approach to language learning has worked so well in Glastonbury, why aren't other districts doing the same? Some districts and some states are working to expand programs into the early grades. However, interviews with language supervisors, principals, and school superintendents seem to indicate that there are major obstacles: in particular, staffing, teacher training, and articulation—sequential planning from level to level. When the middle school or the high school teachers are not trained properly to receive elementary youngsters with a strong foreign language base, these students are thrust into classrooms where the teachers cannot build upon their students' knowledge, resulting in frustration and failure on both sides.

Also, some elementary students go into middle school and high school programs where they are in classes with beginning language students. Teachers teach to the beginning level and the students who have developed a strong language base in the elementary and middle grades are left to sit and become turned off.

## Essential Elements for Success

In many school districts, curriculum supervisors, especially for foreign languages, do not exist. Language study, rare in the elementary grades, does not get the attention that it needs from elementary school principals, most of whom have never studied a foreign language. For the last 40 years the Glastonbury program had the unique and consistent oversight of a foreign language curriculum director from the elementary grades to grade twelve.

In an effort to be more interdisciplinary and to encourage more site-based management, the curriculum director has formed partnerships with the administrators in the district's schools. This results in the oversight of the language program being carried out by a team. The language program director and the elementary principal hire,

supervise, and evaluate teachers. This partnership has resulted in a stronger language program at the elementary level, because the curriculum director has a thorough understanding of how to hire and supervise language teachers and the elementary principals have a greater knowledge of the needs of each school.

Another important element of the Glastonbury elementary and middle school program is that the language teachers in the elementary grades are solicited on the basis of both their language competence *and* their understanding of the broader curriculum at the elementary levels. Elementary teachers in Glastonbury are a combination of elementary classroom teacher and foreign language teacher. Because they feel comfortable in the elementary school environment, they form good relationships with the other classroom teachers and serve as general resources to the broader elementary school curriculum, especially in social studies. Glastonbury's elementary language teachers teach an average of 10 classes a day in the elementary grades. They are usually assigned to only one school, so they become part of the total school staff, as opposed to just being itinerant teachers who don't have a chance to build relationships or rapport in the school.

Another pillar of the Glastonbury curriculum has been coordination of the program in grades two through twelve. Language teachers from all grade levels meet monthly to discuss district-wide events and priorities. The curriculum is reviewed with cross representation from all levels of language instruction that includes community members, classroom teachers, and administrators from other disciplines. All textbook selection and curriculum design is undertaken by teachers representing elementary, middle, and high school. Most recently, in an effort to ensure that the curriculum is being implemented along national, state, and local curriculum guidelines, the teachers have been writing collaborative departmental examinations for grades five through twelve.

In 1996 the teachers created a common scoring mechanism for grading student examinations. In these exams, students listened to native speakers in real life situations, read articles from authentic sources, and wrote a response to a real life event or activity. The teacher conducted speaking interviews with students at all levels.

Also, teachers exchanged students and tapes in order to assess speaking skills and to ensure a common grading standard. Prior to and following testing, teachers met to make sure the test represented appropriate skill levels and that themes used at one level were not repeated at another.

This type of planning ensures that students will move from level to level and build on skills rather than just repeat low level skills at every stage of instruction. The testing will also provide the students with a match between what the curriculum promised and what they actually learned.

All curriculum documents developed for each grade level are shared at parent open houses and with students at the beginning of every school year. Teachers explain to students that the skills they will be learning and the topics that will be addressed are not necessarily the same skills and topics reflected in their textbook—the textbook is only one tool to meet the system-wide goals. If students move into the more advanced levels of language, no single textbook can provide them with all they need to become more proficient speakers of the language.

By sharing the curriculum and testing at the end of every level with the students, parents, and all the teachers, it is hoped that the program will be well-articulated and that students can see their own progress. To help students see the great progress they have made from the elementary school through the high school, portfolio assessment, which includes long-term documentation of student work through projects, videos, audio tapes, and writing samples, is being developed. In the near future, student samples may be kept in an electronic portfolio, and students will be able to present these portfolios for placement at the college and university level in addition to—or in place of—taking the college placement test. College placement tests are generally not based upon what students know and are able to do in schools; they are devised by college level professors with very little experience at the K-12 level. It is hoped that, by presenting these professors with a K-12 portfolio, the college level language sequences will be designed to further students' mastery of a language and not drearily repeat low level material that they have already mastered.

In addition to a communication-oriented curriculum, Glastonbury students have the opportunity to participate in a number of challenging exchange programs. Through the United States Information Agency and the State of Connecticut, Russian language students annually travel to Russia for a three-week stay at a sister school. In 1995 three teachers from other disciplines -- history, English and the school media specialist -- accompanied the Russian language teacher on the exchange program to St. Petersburg. Through these collaborative endeavors, students are able to benefit from the expertise of teachers outside the language department and the language teachers are appreciated for the depth and breadth of their knowledge.

### Interdisciplinary Focus

In Glastonbury, the study of language and culture is not confined to the language program. Recently, the foreign language curriculum director served on the review committee of the K-12 social studies curriculum; in turn, the social studies curriculum director served on the review committee of the language program. As a result, the foreign language curriculum topics are organized so that they parallel topics being presented in social studies.

In the elementary grades, the new history-social studies framework emphasizes particular world areas at different grade levels. The elementary school Spanish teachers correlate the thematic topics they present with the topics presented in social studies at approximately the same time of year. Second graders, for example, study Mexico in their social studies curriculum and the Spanish teachers focuses on the country of Mexico for the entire second grade. In grade six, when world geography becomes the primary focus of the social studies curriculum, students in French and Spanish look at the entire world, with special emphasis on areas where the languages are spoken. In grade seven, students in French, Spanish, and Russian study the role of their respective countries in coordination with the time period being studied in world history.

The same happens in the study of U.S. history: in grades eight and ten, where U.S. history is the focus, the role of immigrants in the development of the history of the U.S. is emphasized for the entire year. At the high school level, foreign language teachers emphasize culture and history topics about Africa, Latin America, and Eastern Europe in their study of French, Spanish, and Russian. Certainly, the study of Latin is correlated with the study of the ancient world at the high school level. Unfortunately, teachers are rarely given common planning time across disciplines, although this would be a natural outgrowth of the braiding of the two curricular areas.

Similar efforts at curriculum "meshing" are going on with other disciplines. Through these types of connections and the interdisciplinary focus on exchange programs, students begin to see the need to apply other content in their learning of a language. They realize that if they are to be proficient speakers of the language, they must have some meaningful information to communicate with people in communities both at home and abroad.

*I think there is a strong impact of learning a second language on learning in general. I am ashamed to say as a former Special Education teacher that I would not have thought about the impact of foreign language because my students traditionally and regrettably would not have taken a foreign language. We have several students right now who are mainstreamed into Spanish but who have substantial special education needs. One has Aspergers' syndrome, a form of autism. When he entered school he didn't talk at all. We thought perhaps he was mute. He has been taking Spanish, since the third grade, and one of the first people he ever spoke to was Ida Shea, his Spanish teacher. Today he participates actively in Spanish class.*

Patricia DaSilva  
Principal, Buttonball Lane School, 1995

## Community Commitment

As important as curricular understanding and unification are both within the foreign language program and across disciplines, it is also vital to communicate to the public that these activities are occurring in the schools so that the public continues to be an advocate for language programs. We invite parents of elementary students to participate in classes during National Foreign Language Week. During these special lessons, classrooms are jammed with parents and grandparents who are delighted to see young children speaking and using the language. Additionally, all elementary school newsletters contain a weekly column on what is happening in the language classroom. Because many parents have not studied a language at the elementary grades, they are not sure what is possible, so our elementary teachers keep them apprised of classroom activities and ways of working with their children at home to use the language.

For students who are new to the district, a parent packet of material, including an audio tape, is made available so that parents can help their child enter the curriculum.

In grades six through twelve, information is provided through school newsletters and two local newspapers that serve the community. The language teachers have an annual goal of publicizing the activities that involve students.

## Parents as Advocates

As mentioned, parents are invited to Foreign Language week celebrations that draw crowds of between 500-800 people. Students from every level perform at these events so parents can see the potential progression of their child's skills throughout the grades.

Throughout the school year, parents and community members serve as representatives on curriculum studies and on the development of school policies that relate to the language program, such as a recently-adopted International Travel Policy.

Furthermore, parent orientation creates many advocates for the language program by involving parents in the preparation for exchange programs and their children's travel abroad. While their children are gone, parents learn about the cross-cultural and linguistic issues that arise in foreign travel and how they can be dealt with in a positive manner.

While it is important that our students travel abroad, it is also very important that we bring students from other countries to stay with families in Glastonbury. Annually, we host foreign exchange students, as well as students from both of our official exchange schools in the former Soviet Union and Morelia, Mexico. These host parents serve as advocates of the program long after their children have graduated from our high school.

## Conclusion

Certainly, the language program has been supported by the parent community over the years. However, support is neither certain nor automatic. The teachers and the curriculum director continually work to maintain a high level of community involvement. From the parent open houses to community-wide international celebrations, something is always taking place that involves students and their families.

Students also organize a number of events. After-school clubs in grades six through twelve, language contest, and immersion experiences are all partially planned by students. As the students continue to love learning languages, they convince others that it is important to study hard and do well in their language classes.

Finally, the success of the program is testimony to the outstanding program staff, who love languages themselves, and who know how learning a language can change one's life forever.

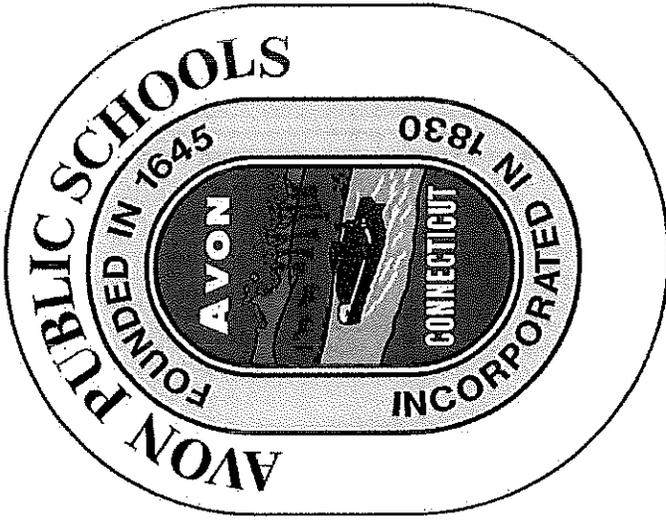
## Reference

S. Soper (Ed.). (1995). The case for foreign languages. The Glastonbury language program [entire issue]. *Perspective, Council for Basic Education* 7 (2).

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Brown, Christine. 1995. "The Case for Foreign Languages, The Glastonbury Language Program." *Learning Languages: The Journal of the National Network for Early Language Learning*, 2, 2, 1997, (3-8), as excerpted from S. Soper, ed. 1995. *Perspective*. Washington, D.C.: Council for Basic Education 7 (2). Reprinted with permission from both sources.

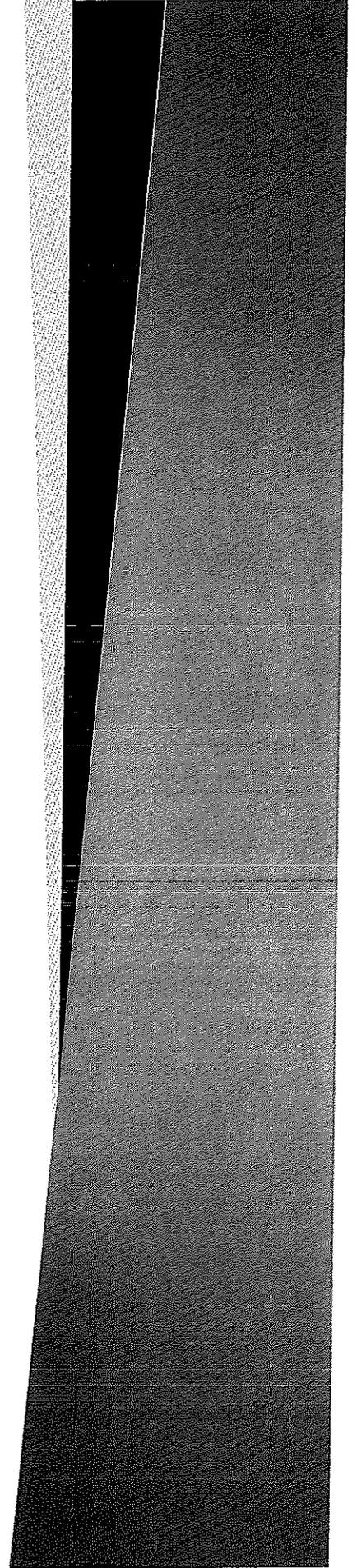
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# Avon Public Schools

## Elementary World Language Instruction Information Packet

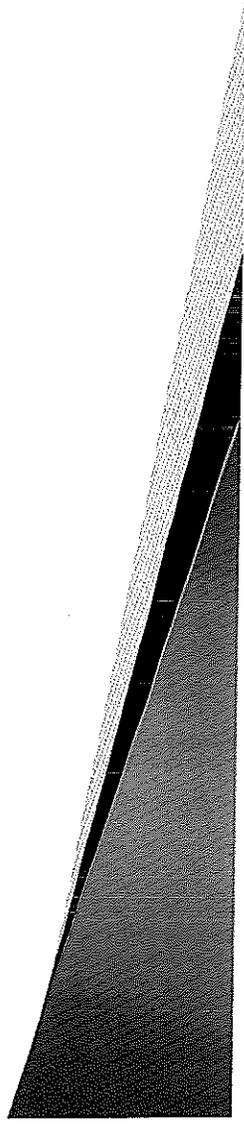
November 20, 2012



# Elementary World Language Instruction

## Overview

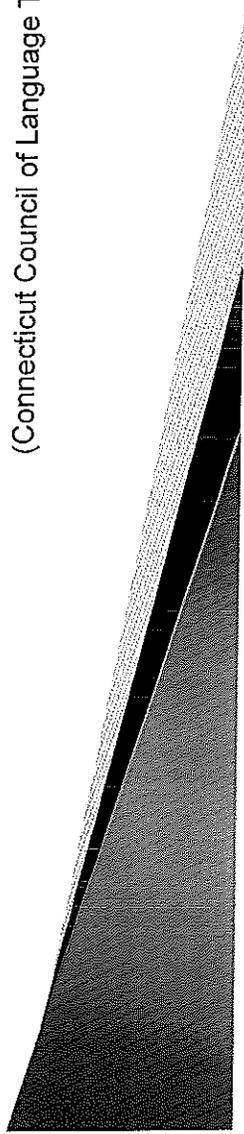
- Rationale
- Status of Elementary World Language Instruction in Connecticut
- What Does the Research Say?
- “A Case for Foreign Languages.....”
- District Cost



# **Rationale for Elementary World Language Instruction**

- Living in a culturally changing society and within the larger global community, students need to become proficient in other languages and to develop an awareness and understanding of other cultures.
- Recent brain research and the research in second language acquisition indicate that young children have a natural aptitude for language development.
- The young student is attitudinally more receptive to learning about other cultures and people and is developmentally at a critical period for language acquisition.
- The organization of the elementary school curriculum lends itself to the study of a second language as an integrated part of the curriculum.
- The learning and strengthening of basic skills, curriculum integration, enhanced student creativity, improved self-concept, and future career awareness are outcomes of elementary school second language programs.

(Connecticut Council of Language Teachers)



## **Status of World Language in Connecticut**

*“All children should have the opportunity to study at least one language, other than English, from pre-kindergarten through Grade 12.”*

*“Each district’s curriculum in world languages depends on the starting point. A system that begins in Grades 5-8 or Grades 9-12 must start from the beginning of the matrix, at Pre-K - 4, and continue from there. The designations of Novice/Beginning, Intermediate, and Advanced are meant to correspond roughly to the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines. As more students advance through longer sequences, these scales may need adjustment.”*

(Connecticut State Department of Education)

## **Status of World Language in Connecticut**

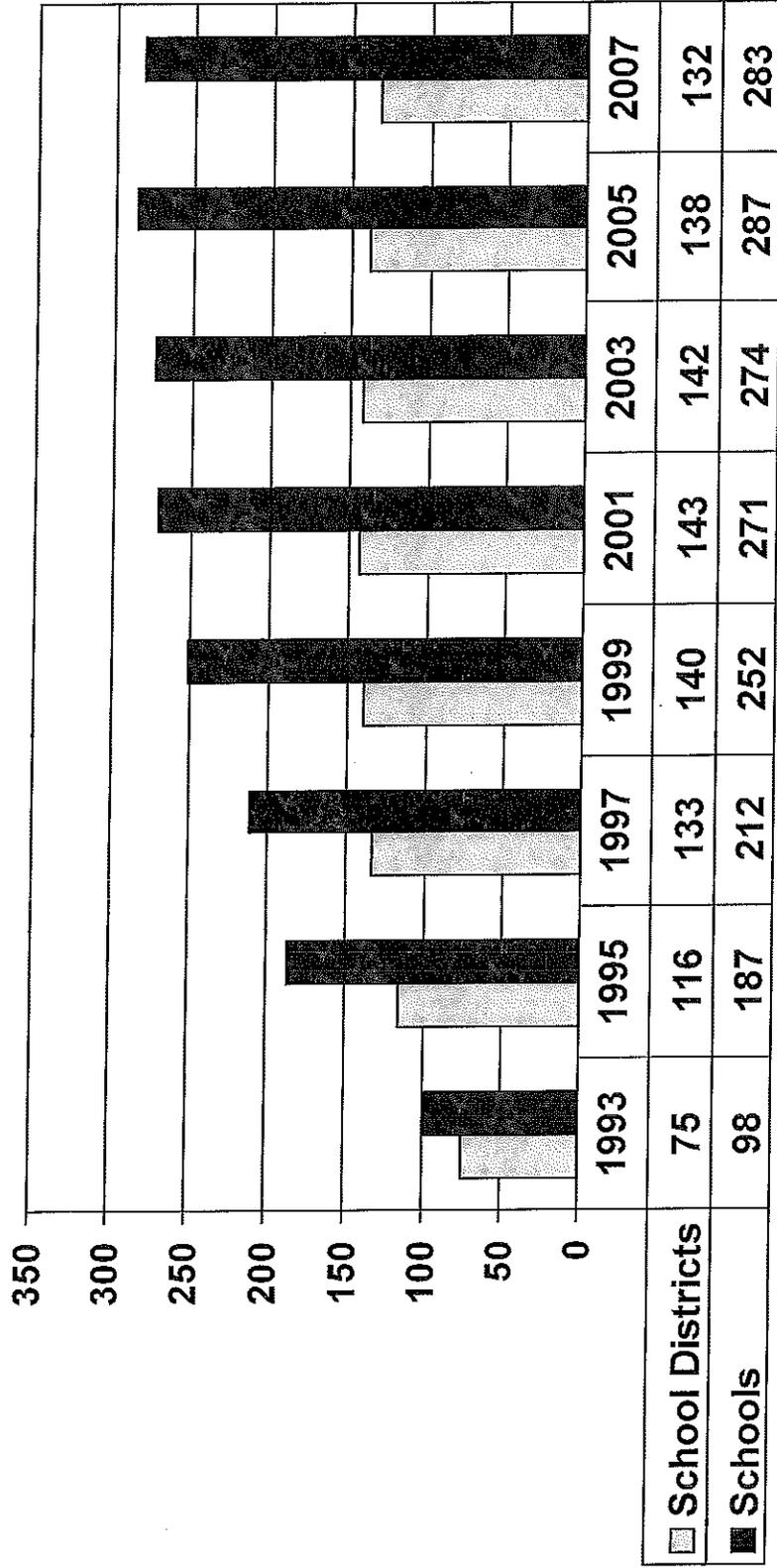
*“Connecticut has seventy school districts that offer a second language below grade 7, including twenty-one starting before grade 4. Each year more school districts make inquiries of the Connecticut State Department of Education regarding the process for developing and implementing a second language program at the elementary school level. The Connecticut Parent Teacher Association reaffirmed its Foreign Language Education Resolution in 1993. This resolution states that “the Connecticut PTA promotes the concept of establishing programs in foreign language in the elementary schools.”*

*“In 1999, the State Board of Education in Connecticut published A Guide to K-12 Program Development in World Languages to help districts in the development of world language programs. A project called Connections (Lyons, M.D.; Peel, E. S.) is also being developed to show how world language curricula support and reinforce the Connecticut K-8 Content Standards and the Connecticut Mastery Test (CMT) objectives for language arts and mathematics.”*

(Connecticut Council of Language Teachers)

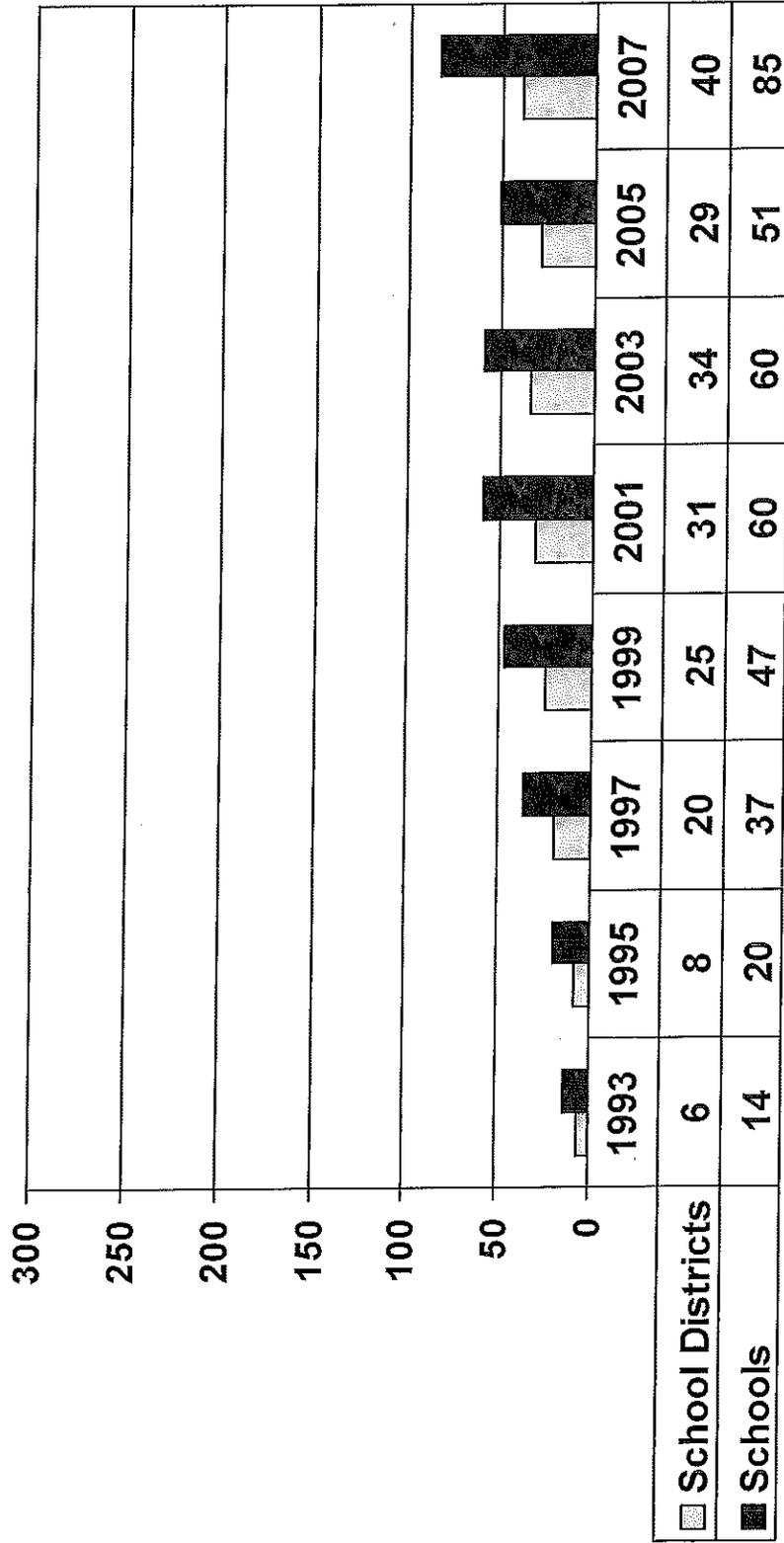
# ED 165 Data

## Connecticut World Language Instruction before Grade 8



# ED 165 Data

## Connecticut World Language Instruction before Grade 4



## What Does the Research Say?

How does language support academic achievement?

- Language learning correlates with higher academic achievement on standardized text measures.
- Language learning is beneficial to both monolingual English and English language learners in bilingual and two-way immersion programs.
- Language learning is beneficial in the development of students' reading abilities.
- There is evidence that language learners transfer skills from one language to another.
- There is correlation between second language learning and increased linguistic awareness.
- There is correlation between language learning and students' ability to hypothesize in science.

## What Does the Research Say?

How does language support academic achievement? (continued)

- Language learning can benefit all students.
- There is a correlation between young children's second language development and the development of print awareness.
- Heritage learners who use their language skills to interpret and translate for family members experience higher academic performance and greater self-efficacy.
- There is a correlation between language study and higher scores on the SAT and ACT Tests.
- There is a correlation between high school foreign language study and higher academic performance at the college level.

## What Does the Research Say?

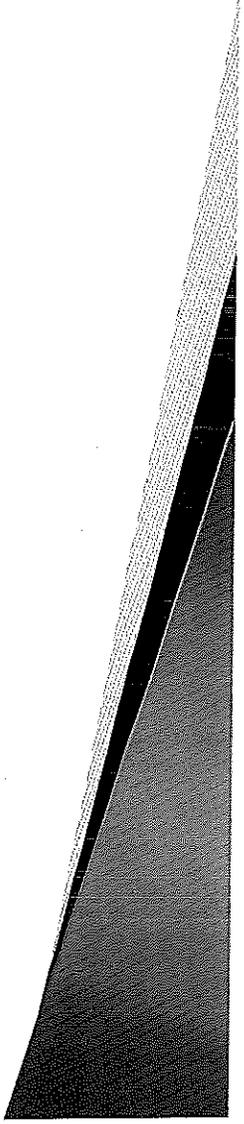
How does language learning provide cognitive benefits to students?

- There is evidence that early language learning improves cognitive abilities.
- There is evidence bilingualism correlates with increased cognitive development and abilities.
- There is a correlation between bilingualism and the offset of age-related cognitive losses.
- There is a correlation between bilingualism and attention to control on cognitive tasks.
- There is a correlation between bilingualism and intelligence.
- There is a correlation between bilingualism and multilingual skills.
- There is a correlation between bilingualism and problem solving ability.
- There is a correlation between bilingualism and improved verbal and spatial abilities.

## What Does the Research Say?

How does language learning affect attitudes and beliefs about language learning and about other cultures?

Research suggests that language learners develop a more positive attitude toward the target language and/or the speakers of that language.



# Cost Analysis

K-6 WORLD LANGUAGE  
(Spanish, 60 minutes/week)

## COSTS

3.7 FTE @ \$60,000	\$222,000
Books, Instructional Supplies	\$20,000
Curriculum Writing, Professional Development	\$12,000

**TOTAL: \$254,000**

## FUNDING

Reduction of 2.0 FTE Para-educators	\$40,000
Choice Revenue	\$182,000
Energy Savings	\$32,000

**TOTAL: \$254,000**

**IMPACT ON BUDGET: \$0**