



# **Biliteracy for a Global Society:**

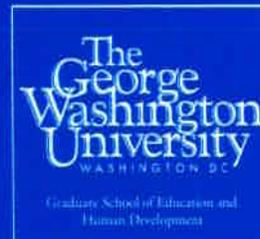
**An Idea Book on Dual Language Education**



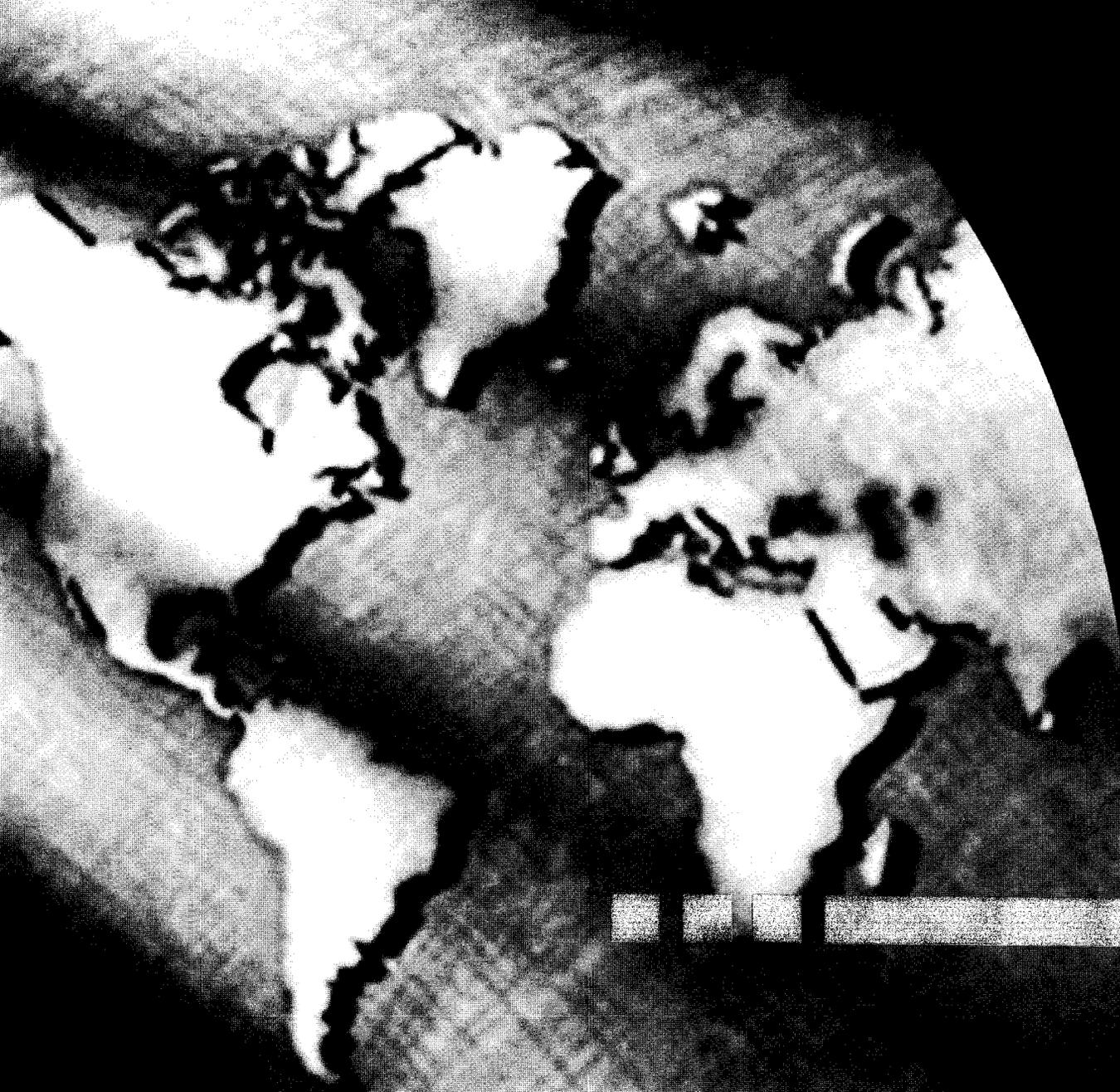
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Principal Investigator: Joel Gómez, Ed.D.

Director: Minerva Gorena, Ed.D.



August 2000



**Biliteracy for a  
Global Society:  
An Idea Book  
On Dual  
Language  
Education**

Kathryn Lindholm-Leary, Ph.D.  
Professor, San Jose State University





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*"I am delighted to see and highlight the growth and promise of so many dual language bilingual programs across the country. They are challenging young people with high standards, high expectations, and curriculum in two languages."*

**Richard W. Riley,**  
U.S. Secretary of Education



# Preface

Dual language education is a program that has the potential to promote the multilingual and multicultural competencies necessary for the new global business job market while eradicating the significant achievement gap between language minority and language majority students. The appeal of dual language programs is that they combine successful education models in an integrated classroom composed of both language majority and language minority students with the goals of full bilingualism and biliteracy, academic excellence for both groups, and multicultural competencies.

## **Language In the Olden Days of America**

*Wherever Europeans established schools in the New World, vernacular education was the rule, whether in English or another tongue. New arrivals naturally strived to preserve their heritage; language loyalties were strong. Indeed, these were among the values that brought the Pilgrims to America.*

### **James Crawford**

Bilingual Education:  
History, Politics, Theory, and Practice, 1999

*One of our national ironies is that the United States is short on the language expertise needed for national defense, international business, and local government services at the same time that unprecedented numbers of immigrants are arriving in the United States thoroughly fluent in languages other than English.*

**Kathleen Marcos**

(ERIC Clearinghouse on  
Languages and Linguistics)  
Are We Wasting Our Nation's  
Language Resources? Heritage  
Languages in America



# Foreword

In 1994, the United States Congress acknowledged the significance of foreign language study, by including it in the Goals 2000 statement of the **National Education Goals**:

***The percentage of all students who are competent in more than one language will substantially increase.***

(Goal 3, Objective v, Goals 2000: Educate America Act of 1994)

The National Assessment Governing Board (NAGB), which oversees the National Assessment of Educational Progress (NAEP), will begin its first foreign language NAEP, to be administered to secondary school students only, in the year 2003. For the first time, we will have a comprehensive national source of information on the foreign language knowledge and performance ability of U.S. students.

The Foreign Language Framework assesses communicative ability through authentic communication tasks required in daily life, school, and work. Assessment tasks will reflect four interrelated goals essential in communication:

- gaining knowledge of other cultures;
- connecting with other academic subject areas to acquire knowledge;
- developing insights into the nature of language and culture through comparisons; and
- participating in multilingual communities at home and around the world.

**NAEP Foreign Language Framework**  
Requires assessment of listening, speaking, reading, and writing skills through three modes of communication:

- **Interpersonal mode** - two-way, interactive communication;
- **Interpretive mode** - understanding of spoken or written language; and
- **presentational mode** - creating spoken or written communication.

*Companies value talented people of diverse backgrounds, perspectives and abilities to help them compete, grow and innovate in dozens of countries all over the world and here in the United States. Increasingly, the U.S. workforce is more diverse by many measures, including race, gender, language, ethnicity, culture, custom, national origin and religion.*

Workforce Diversity:  
A Business Imperative  
in the Global Economy,  
**National Alliance of Business,**  
1998



# Educational Needs of Students in the Global New Economy

## Demographics Affecting Education in the 21st Century

The United States, along with many other countries, has experienced considerable immigration over many decades and particularly in the past 20 years. While the general U.S. population grew at a rate of 17% (from 227 million to 275 million) from 1980 to 2000, the rate of growth varied tremendously across the different ethnic/racial groups in the U.S., and will continue to increase at different rates in the foreseeable future. As the chart below shows, the fastest growing group, Hispanics, currently represents 11.7% of the U.S. population in 2000, but will double to 24.3% by 2050. One other group that has expanded substantially is the Asian American population (at 3.8% in 2000, more than doubling to 8.9% by 2050). Whites will decrease from 71.5% in 2000 to 52.8% in 2050. Modest increases are expected among the remaining groups, which are expected to remain fairly stable over the next 50 years: African Americans (at 12.2% in 2000, 13.2% in 2050); and Native Americans (0.7% in 2000, 0.8% in 2050).

Much of the growth in Hispanic and Asian groups has resulted from recent immigration and this trend is expected to continue. According to the Immigration and Naturalization Service, from 1980 to 1989, legal immigration added 8.4 million and from 1990 to 1998, 8.1 million individuals from a variety of countries.

The educational significance of this demographic shift is that many immigrants are children, or are

**U.S. Population by Ethnicity  
(in percents)**

	<u>2000</u>	<u>2050</u>
White, non-Hispanic	71.5%	52.8%
Hispanic	11.7%	24.3%
Black/African American	12.2%	13.2%
Asian & Pacific Islander	3.8%	8.9%
American Indian, Eskimo, Aleut	0.7%	0.8%

adults who gave birth to children, who enter the school system speaking little or no English. In the U.S., an estimated 9.9 million of the total 45 million school-aged children, live in households in which languages other than English are spoken, a statistic which represents a 35% increase since 1980. While Spanish continues to be the language of two-thirds, or six million children, who speak a language other than English at home, speakers of languages that are Asian in origin have doubled from 1980 to 1990.

### **Educational needs of language minority students**

According to the most recent analysis by the National Center for Educational Statistics, the academic performance of minority students continues to be considerably below majority norms. Reading is critical to student achievement in all subjects, yet a National Assessment of Educational Progress Report shows that the achievement gap is greatest in reading.

A panel of experts was convened in Washington, DC in November of 1995 to address the issues affecting the education of language minority students. They agreed that without effective language education, a pattern of failure develops:

- Students receiving no special language training inevitably fall behind in other subject matter while they struggle to learn English;
- Students may, over time, become fluent in oral English, but are not promoted with their peers, because they have missed several years of instruction in content areas; and
- Students are rarely able to overcome this and are, consequently, more likely to leave school before high school graduation. The National Education Goals Report 1992 found that LEP or ELL students have one of the highest dropout rates in the country.

While there are a number of risk factors implicated in school dropout for ethnic and language minority students, one of these risk factors includes limited English language proficiency at school entry. Fluency in English is also one critical factor in achievement. Although many students can acquire the basic communication skills in English necessary to carry on an everyday conversation with others, they often have difficulty mastering the academic language required of schooling tasks.

#### **Terms**

**Language Minority** - students from homes in which the family speaks a language other than English

**Language Majority** - students from homes in which the family speaks English

**Limited English Proficient (LEP)** - students who do not possess sufficient English language proficiency to participate fully in mainstream education classes

**English Language Learners (ELL)** - more appropriate and current term used for LEP students, who are in the process of learning English

### **Heritage Language Students: A Valuable Language Resource**

In recent years, educators and researchers in the foreign language field have turned their attention to the language education of heritage language students. Often referred to as language minority students, heritage language students speak a language other than English as their first or native language, either because they were born in another country or because their families speak a language other than English at home. Interest in this student population has been triggered by major demographic changes in this country.

Heritage language students come from many different countries and cultural backgrounds and have varied levels of proficiency in their native language. They can be third- or fourth-generation immigrants who speak predominantly English and understand and speak only a few words and phrases in their heritage language (which they learned from their parents and grandparents) or more recent immigrants or U.S.-born students who are fluent in their heritage language but have little or no formal education in it and little or no ability to read or write it. Although these students' oral vocabulary can be extensive, it may be restricted to home and community topics and may not extend to academic subjects. Their speech may also deviate considerably from the standard form of the language that is taught in school.

Until recently, little attention has been given to developing and coordinating well-designed and carefully articulated foreign language programs for heritage language students. Most foreign language courses are designed for monolingual speakers of English, who generally begin their foreign language study with no competence in the foreign language and with minimal knowledge about the people who speak it and the cultures involved. However, an increasing number of heritage language students are entering foreign language classes in K-12 programs and in colleges and universities.

**Russell Campbell and Joy Kreeft Peyton**  
Heritage Language Initiative, Center for Applied Linguistics

### **Key Findings** from Our Nation on the Fault Line: Hispanic American Education

- *Educational attainment for most Hispanic Americans is in a state of crisis.*
- *Although the gap in some measures of educational attainment is narrowing, the disparity in overall achievement between Hispanic Americans and other Americans is intolerable.*
- *Students are segregated in schools that are "resource poor".*
- *Hispanic American students drop out earlier and at unacceptably high rates.*

### **President's Advisory Commission on Educational Excellence for Hispanic Americans, September 1996**

## Global job markets require multilingual and multicultural competencies for all students

According to the National Alliance of Business in 2000, while “average American workers may be retooling to work in a global economy with a diverse group of colleagues, American school-children are still behind. The business community is concerned — and taking action to improve education in the United States. Both in academic achievement and in diversity awareness, U.S. students have much learning to do to keep up with the rest of the world. And increasingly, the rest of the world is in the ball game when it comes to competing for jobs, as companies look everywhere and anywhere for workforce talent and diversity.” They go on to point out that “U.S. students still remain too isolated from people who are different from them, **too insulated in their own cultures and languages**. They are not learning respect for differences or the cooperative skills they need to contribute effectively in diverse work teams.”

As this report demonstrates, there is a greater need for individuals to develop different job skills than those typically required by American job markets in the past, including:

- Bilingual competencies;
- Multicultural competencies and cross-cultural awareness toward co-workers who may differ in culture, language background, and religion;
- High level academic and technical skills; and
- Prosocial skills that enhance communication and teamwork.

Immersion programs (e.g., English speakers enrolled in programs that teach content largely in a second language like Spanish or French or Japanese) have thrived internationally as educators and politicians recognize the need to implement educational programs that promote higher levels of communicative proficiency than those offered by traditional foreign language models.

### Spanish Language Proficiency?

*Mexico is the second fastest growing market for U.S. exporters, with a growth rate of **118%** from 1992 to 1997.*

Southern Growth Policy Board,  
**National Alliance of Business**, 2000

# Dual Language Education Programs

## The major goals:

- High levels of bilingual proficiency
- Biliteracy - read and write at grade level in both languages
- Content area (mathematics, science, social studies) achievement at or above grade level
- Multicultural competencies

## What are Dual Language Education Programs?

Dual language education programs have a variety of names: bilingual immersion, dual language immersion, two-way immersion, two-way bilingual, Spanish immersion (or whatever the target language is combined with the word immersion), developmental bilingual education (DBE— the name the U.S. Department of Education uses).

Dual language education integrates language minority and language majority students for academic instruction that is presented separately through two languages. For both groups of students, one of the languages is their native language and one is a second language (although for some students one could be a third or fourth language).

The definition of dual language education (DLE) encompasses the following **four critical components**.

- The program essentially involves instruction through two languages, where the target language is used for a significant portion of the students' instructional day [target language is used here to distinguish the second, or non-English, language of the program].
- The program involves periods of instruction during which only one language is used.
- Both native English speakers and native speakers of the target language are participants.
- The students are integrated for most content instruction.

**The dual language education model is different from other educational models for students who are not proficient in English in several regards.**

- Language minority students are integrated with native English speakers in an environment that explicitly values the language and culture of the language minority student and that treats all students, regardless of language or ethnic background, in an equitable fashion.
- At the kindergarten and first grade levels, the target language is the status language for a significant portion of the instructional day and English speakers look up to and are helped by the target language speakers, because of their knowledge of the target language. During English time, the situation is reversed.
- Both groups of speakers are highly valued, not only the English speakers, as is the norm in most classrooms.
- Teachers are trained to treat all students equitably and to have high academic expectations for all students. Teachers are expected to communicate this equity to students in the classroom so that all students value each other, regardless of their language, ethnic, religious, or social class background.

**Dual Language Education:  
An Early American Tradition**

*By mid-century, public and parochial German-English schools were operating in such cities as Baltimore, Cincinnati, Cleveland, Indianapolis, Milwaukee, and St. Louis. An Ohio law of 1839 authorized instruction in English, German, or both in areas where parents requested it. In 1847, Louisiana adopted the identical statute, except that it substituted French for German. The Territory of New Mexico, two years after its annexation in 1848, authorized Spanish-English bilingual education. Altogether more than a dozen states passed laws that provided for schooling in languages other than English, either as a subject or as a medium of instruction. Even without explicit legal authorization, local school boards provided classes in languages as diverse as Swedish, Danish, Norwegian, Italian, Polish, Dutch and Czech.*

**James Crawford**

Bilingual Education: History, Politics, Theory, and Practice, 1999

## History and Current Status of Dual Language Education Programs

Modern era dual language education programs emerged as a viable model as a result of four programs that began 20-30 years ago. During the mid-1960's, Dade County Public Schools in Miami, Florida, developed two 50:50 Spanish-English DLE programs. Shortly thereafter, in the 1970's, programs were formed in three other school districts (Washington, DC and Chicago, Illinois developed a 50:50 model and San Diego, California began a 90:10 model).

From the five or so DLE programs two decades ago, there were 261 counted (and many more uncounted) programs in 1999. Spanish is by far the most popular target language (240, or 92%), followed by six Cantonese, four Korean, four French, two each of Navajo and Japanese, and one each of Arabic, Portuguese, and Russian. Almost all of these DLE programs were established at the elementary level, with very few programs established at the secondary level.

### Where are these programs? Everywhere...

DLE programs exist in 24 of the 50 states.  
For example,

**The Northwest** – Oregon, Alaska

**The Southwest** – California, Arizona,  
New Mexico, Texas, Colorado

**Central** – Illinois, Wisconsin, Kansas,  
Michigan, Minnesota, Oklahoma

**The Southeast** – Florida, North  
Carolina, Virginia

**The Northeast** – New York,  
Connecticut, Massachusetts,  
New Jersey, Pennsylvania,  
Maine, District of Columbia,  
Maryland

There are DLE programs in...

Large urban schools

Inner city schools

Rich and middle class suburban schools

Small rural schools

**Want to know more?**

**Check [www.cal.org/db/2way](http://www.cal.org/db/2way)**

*The degree of children's native language proficiency is a strong predictor of their English-language development.*

**Diane August and Kenji Hakuta**  
Improving Schooling for Language  
Minority Children: A Research  
Agenda, State of Knowledge -  
Committee on Developing  
a Research Agenda on the  
Education of Limited English  
Proficient and Bilingual Students,  
1997



# Dual language education is based on three important premises documented by research

Research in the U.S. and many other countries clearly shows that a second language is best acquired by *language minority* students when their first language is firmly established (e.g., content instruction in their first language), and that a second language is best developed by *language majority* children through immersion in that language (e.g., content instruction in their second language). **WHY?** There are two reasons.

- Students, who can enjoy an *additive* language program that enables them to add a second language to their first, whether they are *language minority* or *language majority* students, demonstrate higher levels of language proficiency, achievement, and self-concept. [In contrast, *subtractive* programs require *language minority* students to learn English as quickly as possible and supplant their native language, which is not at all or only minimally developed in the program (i.e., all-English instruction), typically resulting in lower levels of language proficiency, achievement and self concept].
- Immersing English speakers in the non-societal language will promote higher levels of second language proficiency, while immersing *language minority* students in their native language will produce not only higher levels of their native language but also higher levels of English proficiency. Part of the reason for this finding is that English is much more powerful and more easily learned than the target language, which is in danger of language loss.

### Language Assimilation

Since 1991, the Children Immigrants Longitudinal Study has followed the progress of 5200 teenagers representing 77 nationalities in two key areas of the U.S.

*Over 90% of these children report speaking a language other than English at home. But 73% of them preferred to speak English instead of their parents' native tongue [in 1992]. By the second study [1995], the proportion who preferred English swelled to 88%...*

*The data vividly underscores the rapidity with which English triumphs and foreign languages atrophy. The second generation is not only strongly encouraged to speak, read, and write English fluently, but prefers it overwhelmingly over their parents' native tongue. This pattern of rapid linguistic assimilation is constant across nationalities and socioeconomic levels.*

**Rubén Rumbaut**, "Transformations: The Post-Immigrant Generation in an Age of Diversity," JSRI Research Report #30, The Julian Samora Research Institute, Michigan State University, 1999

Knowledge learned through one language paves the way for knowledge acquisition in the second language. Students who learn content (e.g., reading, mathematics, science) in one language can demonstrate knowledge of that content in the second language once they acquire the language skills to express the content knowledge.

Students need to reach a certain level of native language proficiency to promote higher levels of second language development and bilingual proficiency. Once students have sufficiently developed both languages, they will benefit from the **cognitive advantages that accrue with bilingualism**: more creative thinking, greater mental flexibility, ability to think more abstractly, and superior concept formation.

# Key Features of Dual Language Education Programs

## **IQ ADDvantage of Bilingualism**

*Take any group of bilinguals who are approximately equivalent in their L1 and L2 abilities and match them with a monolingual group for age, socioeconomic level, and whatever other variables you think might confound your results. Now, choose a measure of cognitive flexibility and administer it to both groups. The bilingual will do better.*

**Kenji Hakuta,**  
Mirror of Language, 1986

A number of reviews have been conducted of research and evaluation studies concerning effective schools and instruction in the U.S. and many countries around the world.

An examination of the educational investigations points to certain **key features** which tend to be associated with effective education programs. These seven factors form the key features for successful dual language education.

### **1. Administrative Support and instructional Leadership**

While there are a number of characteristics of particularly successful leaders, these attributes can be categorized into two predominant salient features.

- **Administrative support**

- Strong support for the program by the school district and the local Board of Education, as demonstrated in the structural and functional integration of the program within the total school system and an equitable allocation of resources.
- Strong principal support assures that the language education program is integrated within the total school, that all teachers and staff understand the language education program.

- **Instructional Leadership**

Leadership may come from a vice principal, program coordinator or resource teacher. This individual has extensive knowledge of the language education model being implemented at the site, second language development, bilingual and immersion education theory and research,

instructional methodologies, effective classroom practices, and the belief that the selected language education model can work once it is implemented correctly.

## 2. A Positive School Environment for All Students

A positive school environment refers to the atmosphere and ethos to which the student is exposed in the classroom and school, including the following features:

- **School environment conducive to learning**  
Research on effective schools and successful minority students has shown that effective schools have:
  - An orderly, safe, and warm environment that facilitates learning;
  - A school-wide instructional focus and commitment to achievement;
  - High expectations for all students; and
  - Students with pride in their school.
- **Additive dual language environment**  
All students are provided the opportunity to acquire a second language at no cost to their home language and culture.
- **Positive Instructional Climate**
  - Promotion of positive interactions between teachers and students and between language minority and majority students.
  - Cooperative learning is used to optimize student interactions and shared work experiences, and to facilitate extensive interactions among native and non-native speakers.

- **Multicultural Components**

Effective schools have faculty who are committed to equality; who provide instruction in an equitable manner to students from different ethnic, social and language backgrounds; who have been trained in multicultural understanding and educational equity; and who use books and instructional materials that represent ethnic and religious diversity.

## 3. High Quality Instructional Personnel

Teachers in language education programs, like in mainstream classrooms, must possess the typical knowledge of content, curriculum, instructional strategies and classroom management skills.

Effective language education programs require teachers who have native or native-like ability in either or both of the language(s) in which they are instructing.

*The dialects spoken by children influence teacher perceptions of their academic ability, the students' learning opportunities, evaluations of their contributions to class, and the way they are grouped for instruction.*

**Diane August and Kenji Hakuta**

State Of Knowledge - Committee on Developing a Research Agenda on the Education of Limited English Proficient and Bilingual Students: Improving Schooling for Language Minority Children: A Research Agenda, 1997

### **Research Highlights: Teachers in DLE Programs**

- Teachers who provided a more positive classroom environment were more likely to use appropriate second language development strategies.
- Teachers who rated themselves higher in teaching efficacy:
  - perceived high levels of support from their principal, non-DLE teachers at their site, and parents; and
  - provided a more positive classroom environment and utilized second language development instructional strategies.
- High efficacy was also influenced by the extent to which there was program planning at the site, administrative support, and whether student diversity needs were met.

## **4. Professional Development/Teacher Training**

An effective teacher requires training. In the dual language education program, there must be pre-service and in-service training in:

- The dual language education model, including bilingual and immersion research and theory;
- Second language development;
- Instructional strategies in second language development;
- Multicultural and educational equity training; and
- Cooperative learning.

## **5. Instructional Design that Promotes Achievement, Biliteracy and Bilingualism**

Several key features relate to content and language learning that promotes bilingualism and biliteracy.

### **• Academic Curriculum with High Standards for Achievement**

The instructional curriculum is based on state and local school district guidelines, and is equivalent to that for students at the same grades not enrolled in the DLE program. Schedules are carefully structured for teaching all required academic subjects using methods appropriate not only for specific grade levels, but suitable also for enabling both language minority and language majority students to acquire high level language skills in both languages.

### **• Duration of Instructional Treatment**

The instructional treatment is provided to the participating students for a period of at least six years so that they may reach academic proficiency in both languages.

### What do you think of learning in two languages?

It's so fun!

#### Is it hard?

No, cause the kids who understand in Spanish always help us. Plus the teacher tries to help us understand. Sometimes it's funny - she looks like an actress.

Jessica, Kindergarten

- **Exposure to Optimal Dual Language Input**

- Comprehensible input through the use of slower, more expanded, simplified, and repetitive speech oriented to the "here and now"; highly contextualized language and gestures; comprehension and confirmation checks.
- Stimulating language input, particularly for the native speakers of each language.

- **Language Output: Promotion and Opportunities**

- Providing both structured tasks and unstructured opportunities involving oral production skills.
- Establishing and enforcing a strong language policy in the classroom that encourages students to use the instructional language and discourages students from speaking the non-instructional language (not appropriate in grades K-1).

- **Integrated Language Arts Instruction**

Language arts curriculum specifies which linguistic structures should be mastered and how these linguistic structures should be incorporated into the academic content (e.g., using past tense verbs to discuss history and conditional verbs during science).

- **Separation of Languages for Instruction**

Monolingual lesson delivery (i.e., different periods of time devoted to instruction in and through each of the two languages respectively).

- **Ratio of English to the Target Language**

- A minimum of 50% target language instruction to promote high levels of the non-English language proficiency among language majority students and to promote academic achievement among language minority students.
- A minimum of 10% English instruction initially is important to promote English language development for the non-native speakers of English.

## 6. **Understanding student needs and best ratios for classroom composition**

To maintain an environment of educational and linguistic equity in the classroom and to promote interactions among native and non-native English speakers, the most desirable ratio is 50% English speakers to 50% target language speakers. To insure that there are enough language models of each language to promote interactions between the two groups of students, there should be no more than two speakers of one language to one speaker of the other language.

## 7. Parent Involvement and Home/School Collaboration

Parental involvement and collaboration with the school is critical. Parents are also important in recruitment and need to understand the program.

- Parents need training about the model, including the educational equity that balances meeting the educational needs of both groups of students.
- Parents should be provided training in how to promote language proficiency and academic achievement.

### **Research Highlights:**

#### **Research study of parents with children in dual language education programs**

- Parents were very satisfied with the program and would highly recommend the program to other parents.
- Parents were confident that their child would be bilingual as a result to the program.
- Most parents also saw the value in their child studying Spanish: to be comfortable with other Spanish speakers, to meet and converse with varied people, to participate in activities with people of other cultures, and felt that others will respect the child if s/he is bilingual.
- Parents believed that studying Spanish was important for their children because they will need it for their career and it will make them more knowledgeable.
- The frequency with which a parent read to their child was significantly associated with the students' standardized reading achievement score and the teacher's assessment of the students' reading skills.

**Kathryn Lindholm-Leary,**  
Dual Language Education



# Different Dual Language Education Models

Two major variants of the DLE model exist—usually referred to as the 90:10 and the 50:50 models. The principle factor distinguishing these two program variations is the distribution of languages for instruction. The amount of time spent in each language varies across the grade levels in the 90:10, but not 50:50, design.

In the **90:10** model, at the **kindergarten and first grades**, 90% of the instructional day is devoted to content instruction in the target language (for example, Spanish or French or Korean) and 10% in English. All content instruction occurs in the target language, and English time is used to develop oral language proficiency and some pre-literacy skills. Reading instruction begins in the target language (e.g., Spanish) for both the target language-speaking and English-speaking students.

At the **second and third grade** levels, students receive 80% of their day in the target language and 20% in English. All students continue their reading instruction in the target language. Students begin formal English reading in third grade, but they are exposed to English print and English literature as early as first grade. They might be studying mathematics, social studies and science in the target language, and language arts in both languages. PE, music, art and other subjects would be taught in either language, depending on the needs at the school site.

By **fourth, fifth and sixth grades**, the students' instructional time is balanced between English and the target language. They receive formal language arts in both languages. Content is equally divided between the two languages as well. Thus, mathematics and science might be taught in the target language, and social studies, art and music in English (or vice versa). Language arts would be taught in both languages.

In the **50:50** model, students receive half of their instruction in English and the other half in the target language throughout all the elementary years. Literacy instruction varies slightly in this model. At some school sites, students learn to read first in their primary language and then add on the target language at grade 1 or 2. At other school sites, students learn to read in both languages simultaneously.

## 90:10 Grades K-1

<b>Target</b> 90%	<b>English</b> 10%
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## 90:10 Grades 2-3

<b>Target</b> 80%	<b>English</b> 20%
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## 90:10 Grades 4-6

<b>Target</b> 50%	<b>English</b> 50%
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## 50:50 All Grades

<b>Target</b> 50%	<b>English</b> 50%
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**A typical day for Jessica, English-speaking  
Kindergartner: Day 5 in Kindergarten  
90:10 Spanish/English Program**

**WHY NOT IMPLEMENT 90% English and  
10% Spanish?**

There are two reasons, one relating to each of the two populations in the program.

- **English Speakers** – this is more like a foreign language program and does not provide enough of the target language for the students to develop speaking and listening proficiency AND it does not enable the students to develop the literacy skills necessary to work at grade level.
- **Target-Language Speakers** – research shows that language minority students develop higher levels of proficiency in English and achieve academically at higher levels when they are given the opportunity to learn content in a language they understand while they learn English.

*Jessica's parents selected the DLE program because they wanted their daughter to be bilingual. They felt that the school was a good one and that their daughter would be more challenged by learning in two languages, rather than learning through English only.*

Jessica is nearing the end of her first week in kindergarten—the first week of exposure to Spanish in class. She is in a 90:10 program, so her teacher, Ms. Sánchez, uses English for 20 minutes per day and Spanish for teaching all the remaining content.

*Jessica's experiences in the second language portion of the day will probably be equivalent to those of other students in a 50:50 program, though the amount of their exposure to Spanish would vary. Further, Jessica's experience may vary from that of her English-speaking classmates learning in a Korean classroom in that Jessica may recognize more of the letters and words on the wall because the alphabet system is familiar to her. Otherwise, though, Jessica is similar to many of her classmates in dual language classrooms across the country.*

Jessica walks into class, hearing Spanish and English spoken all around her by her classmates. She looks on the wall and sees many colorful displays with pictures and symbols (letters, numbers, words). Like most Kindergartners, she does not yet read though she may recognize some words and letters. An

English-speaking classmate greets Jessica enthusiastically in English. They chatter away in English. The teacher calls the class to order in Spanish and asks the children to come up front and sit on the carpet. As she is telling the children to come up to the carpet, Ms. Sánchez establishes eye contact with her students and beckons them with her hands to come up to the carpet. Then, still using hand movements to illustrate her speech, she says and gesticulates to sit down, as she begins to sit in a chair. Jessica and her friends have probably already learned this classroom routine and know what the teacher wants. After all, they practiced this many times on Monday, Tuesday and Wednesday. On Monday, though, when the teacher told the children “Vengan a la alfombra,” Jessica might have been puzzled and unsure what the teacher wanted. Upon looking confused, one or two Spanish-speaking classmates would eagerly translate for her, possibly even with broken English. Or, she might just look around and follow the other children to the front.

Ms. Sánchez is going through the calendar activities—in Spanish. She uses many pictures, objects, gestures, and carefully enunciated speech to help the English-speaking children understand. Since Jessica has seen a calendar at home, and this is now a familiar activity, she joins along in reciting the days of the week, beginning with Monday ... lunes, martes, miércoles, jueves, viernes. It doesn't matter if she forgets, as there are always some students and the teacher who know all the days. Then they count the days....uno, dos, tres and so on. After a few short days, Jessica remembers these new words.

Later that day, Jessica is participating in a math group. Ms. Sánchez shows the children how to group beads into two

piles: GRANDE o PEQUEÑO. Jessica notices that the teacher looks at the bead, says, “grande”, and puts it in the GRANDE pile. Then she picks up another bead that is red, says, “grande” and puts it in the GRANDE pile. Another bead that is red gets put into the PEQUEÑO pile. Hmm, then she starts to notice that the teacher is putting little beads into the PEQUEÑO pile and bigger beads into the GRANDE pile. Excitedly, Jessica picks up a bead, looks at it, says, “grande” and puts it in the GRANDE pile. “Maestra, look, I did it, I know ‘grande’.” Ms. Sánchez responds with “sí, muy bien, Jessica.” Jessica can tell by the smile in Ms. Sánchez's eyes and the positive tone of her voice that she did a good job. But by now, Jessica knows that the teacher is telling her, “Yes, Jessica, very good.”

Jessica has used many cues common to Kindergartners, students of all ages, and second language learners how to learn and how to use context to learn. Further, Ms. Sánchez knows the language strategies to help her students learn effectively.

**A typical day for Marcos, Spanish-speaking third grader:  
50:50 Spanish/English Program**

*Like most Spanish-speaking parents, Marcos' parents wanted their son in the DLE program because they wanted their son to become bilingual. More than anything, though, they were very clear that they wanted their son to become totally proficient in English.*

Marcos is used to the routine of learning through two languages now. He has been in a 50:50 program since Kindergarten. His teacher, Mr. Baron, uses English for half the day and Spanish for half the day. This quarter, Spanish is used in the morning and English in the afternoon. Next quarter, this will be reversed so that students do not always get English during the afternoon when many students tend to become tired.

Marcos enters the classroom after lunch and, like Jessica, hears Spanish and English spoken by his classmates. However, most of the chatter is in English, as almost all of the students in the classroom are now fluent in English. Mr. Baron calms the kids down with a newspaper story about launching the new Triana telescope into space to view Earth. He reads the story in English and relates the article to a science/social science thematic unit the students are doing on space and map making. He launches into a discussion of planets and what views of earth would be available from different planets.

While Mr. Baron is careful to define new words, as he would in any third-grade classroom, the students are all fluent in English and do not

require the special gestures and more carefully enunciated speech to understand him, as they did in kindergarten and first grade. Sometimes Mr. Baron pays particular attention to Marcos and his Spanish-speaking classmates to make sure they understand and can use the academic English that is required in the higher-level literacy, math and science projects they do.

For the most part, the same is true when he teaches in Spanish. However, in this case, he has to help some of the English speakers during Spanish time, as they are not always able to produce highly complex sentences with the correct grammar. These kids, though, can do their classwork in both languages—at grade level.

# Effectiveness Of Dual Language Education Programs

## Research Results

Two major sets of studies of dual language education programs have been carried out over the past several years. One set of cross-sectional and longitudinal studies by Dr. Kathryn Lindholm-Leary represents 7,120 students in 20 schools, mostly in California. Wayne Thomas and Virginia Collier conducted another set of longitudinal studies on reading achievement with a national database of 700,000 ELL students from five large urban and suburban school districts. As Kathryn Lindholm-Leary pointed out in her recent comparison of results of these two data sets, the trends from these two studies are very similar. This similarity lends further credence to the conclusion that dual language education can close the achievement gap between language majority and language minority students.

- **Bilingual Language Proficiency**
  - Both DLE models, 90:10 and 50:50, promoted proficiency in two languages.
  - Students in 90:10 programs developed higher levels of bilingual proficiency than students in the 50:50 program.
  - In developing proficiency in the English language, both English and Spanish speakers benefited equally from 90:10 and 50:50 programs. Thus, whether they spent 10-20% or 50% of their instructional day in English, students were equally proficient in English.
  - Developing high levels of Spanish proficiency was much more likely to occur in 90:10 than 50:50 programs for both English and Spanish speakers.
  - There is no evidence to suggest that participation in DLE programs retards the native language development of Spanish or English speakers. All students, regardless of their student characteristics, were proficient in English and Spanish.

- **Biliteracy: Reading and Writing in Two Languages**

- Students made significant progress in reading and language, and they performed at similar levels as their same language-background peers using California state norms for English and Spanish speakers. Longitudinal and cross-sectional results were very consistent for reading achievement.
- By the time English speakers began English reading instruction in grade 3, they performed at grade level and at least as high as the California statewide norms for English speakers instructed only in English.
- Higher levels of bilingual proficiency were associated with higher levels of reading achievement.

- **Content Area Achievement: Mathematics, Science and Social Studies**

- Both English and Spanish-speaking students scored on par with their peers in mathematics achievement using California state norms for English and Spanish speakers. Longitudinal and cross-sectional results were very similar for mathematics achievement.
- Mathematics achievement was highly related across the two languages. This result demonstrates that content learned in one language was available in the other language as well. Despite limited English instruction and little or no mathematics instruction in English, 90:10 students were able to score at or close to grade level on the mathematics achievement tests in English.
- Social studies and science achievement scores were average to high for both groups of students at all grade levels.
- The lack of differences between students in 90:10 and 50:50 programs in English mathematics demonstrates that English and Spanish speakers are not at any disadvantage because of the additional Spanish, and consequently less English, in their instruction.

### **Writing a 5th Grade Report – in Spanish, of course!**

*How do you write a report?*

Well, like we have to write a report on the Civil War, in Spanish, of course.

*Is that hard to do?*

Oh no, I just find books in Spanish and read them. Then I have to take notes on what I read. Sometimes I can't find enough books in Spanish. So I find more books in English. I take notes on them too. Then I write the report in Spanish.

*Do you take notes in English or Spanish?*

It depends. If the book is in Spanish, I write in Spanish. If the book is in English, I do it in English. But I write things down in Spanish too. If I have to turn the notes in to my teacher, then, of course, I write the notes in Spanish.

*It sounds like you can go back and forth between the two languages pretty easily.*

I can cause I know Spanish really well. Sometimes it's hard cause I don't know a word in Spanish. But, my cousin has to write reports too. He only speaks English and sometimes he has trouble writing reports in English. So, I guess reports are just hard to write – in Spanish and English.

**Alex, 5th grade**

- Studies of students in Korean/English dual language education programs produced similar results, with higher scores in mathematics achievement among the native Korean-speaking students.
- **Multicultural Competencies**  
In the DLE students' responses to questions about multicultural attitudes, scores were consistently high in:
  - perceptions and willingness to interact with others who differed in physical characteristics (looks, skin color) or in language background;
  - belief that speaking another language could help them understand and get along better with other people and that Spanish is important to talk with others; and
  - enjoyment in meeting people who speak another language.

### **Follow-Up Study Of Graduates Of Dual Language Education Programs**

One follow-up study is being conducted through the Center for Research on Education, Diversity and Excellence, funded by the U.S. Department of Education, of high school students who had attended dual language education programs in elementary school. To date, analyses include 100 high school students (grades 9-11), graduates of dual language immersion programs. The previously ELL students (who are now bilingual students) came from homes in which there were low levels of education (75% of moms had elementary or less than a high school background) and 75% of the ELL students were participating in the free lunch program at school. The results indicate the success of English Language Learning students in dual language education programs in four arenas:

- **High School Completion**
  - None of the students felt that they would drop out of school; and
  - Half of the former ELL students said that **participating in the dual language program kept them from dropping out of school.**
- **College Plans**  
In looking at their post-high school career and college plans, most former ELL students responded that:
  - Getting a good education is important (94%); and
  - They want to go to college (91%).
- **School-Related Attitudes**  
Students' attitudes toward the dual language program and their achievement in it were very positive.
  - In asking the students whether they felt they were behind or ahead of their peers who did not attend a dual language immersion program, 65% said they were at the same level or ahead, and 15% responded that they were *way ahead* of their peers;
  - The DLE program: gave them a better education, challenged them to do better, and gave them a sense of accomplishment; and
  - Students felt valued in the dual language program, were glad they participated in the DLE program and would recommend it to other students.
- **Benefits to Bilingualism**  
Almost all students also reported important benefits related to being bilingual:
  - Did better in school, could think better, being bilingual gave them confidence; and
  - They will get a better job as a result of being bilingual.

## Research results for 90:10 vs. 50:50

- Proficiency in English – English and Spanish speakers benefited equally from 90:10 and 50:50 programs. Whether they spent 10-20% or 50% of their instructional day in English, students were equally proficient in English.
- Proficiency in Spanish and bilingual proficiency – much higher in 90:10 than 50:50 programs for both English and Spanish speakers.
- Academic achievement scores were similar for English-speaking and Spanish-speaking students in 90:10 and 50:50 programs.



# Considerations in Implementation

## **Choosing Which Model to Implement**

Many school administrators must decide whether to implement a 90:10 or 50:50 model, or a proportion in between (80:20, 70:30). There are several points to consider in answering this question.

- Political and community pressure can influence a decision on which type of language education model to choose. Parents or administrators may voice concern for a program that includes a significant amount of the instructional day in the target language (like the 90:10 design). In these cases, if parents and educators cannot be convinced by the research findings, then a school may have to implement a model with more time devoted to the societal language (70:30 or 50:50).
- Are there sufficient teachers with high enough levels of language proficiency to teach in the program? Also, is there an appropriate administrator who can and is willing to provide leadership for the program?
- The student population and whether there are sufficient students to implement the desired model must be considered. If a DLE program is desired, is there an adequate population of majority and language minority students? A continuous shortage of one or the other group of students will not meet the definition of a DLE program. The major consideration should be whether the program model can meet the educational and language needs of both groups of students in an equitable classroom environment.

## Student Populations

- The results from studies of students in dual language education programs show that students from all **ethnic, cultural, and social class backgrounds** can benefit from the DLE program. Some administrators fear that any instruction involving two languages is inappropriate for African American students, especially bi-dialectal African American students from working class families. However, research has shown that African American students can perform at or close to grade level in English while being instructed largely in Spanish. Since the great majority of these students were low-SES, these results are encouraging in demonstrating that even low-income African American students benefit from DLE programs.
- Students with **special education needs or learning disabilities** are typically accepted in the DLE program. The only caveat is where students have a serious speech delay in their native language; in these cases, the decision for admittance is carefully conducted on an individual basis. Further, students are typically not moved from the DLE program because of special education or learning disability needs.

## Finances

Dual language and other language education models **do not typically cost more** to implement than the mainstream program. Students need a teacher, classroom and instructional materials in a DLE program just as they do in any program. Some schools have opted to add resources to the program, including additional teachers, resource specialists (e.g., reading specialist), and teacher aides. Some districts have funded a program coordinator for the DLE program to oversee program development, teacher training, parent recruitment, and material acquisition. However, most schools operate without these additional resources.

There are some extra costs associated with beginning a new language education program, as there are with any new program. One cost is in training the teachers so that they understand the model. Other start-up costs include acquiring: instructional materials in the second language, resource materials for the library so that students can conduct research in the target language, and pleasure reading materials to promote literacy in the second language.

## Programs at the Secondary Level

Secondary DLE programs typically include a language arts class and one or two content courses that are offered in the target language. Some of these content courses are classes the student needs for graduation requirements and others are electives. At some sites, the DLE program has enabled the schools to expand or develop a program for immigrant Spanish-speaking students who are new to the school. These classes, which integrate the DLE students with recently arrived immigrants, can serve to strengthen the need to use the target language and revitalize language development for the DLE students, particularly English speakers.

# Conclusions

Results demonstrate that the dual language education model can be successful.

Students learn the communication skills and multicultural competencies to work on multicultural teams. Further, research reveals that students develop the types of com-

petencies required by the global economy job market:

- Bilingual proficiency;
- Biliteracy;
- Achievement in content areas; and
- Multicultural competencies.

However, the dual language education model is not a panacea. Variations in outcomes among schools demonstrate the importance of carefully planned programs, well-trained teachers, strong leadership, and administrative support.



# Resources and Other Information

## **Books:**

Colin Baker (1995). A Parents' and Teachers' Guide to Bilingualism. Clevedon: Multilingual Matters Ltd.

Donna Christian, Chris Montone, Kathryn Lindholm, and Isolda Carranza. (1997). Profiles in Two-Way Immersion Education. Washington, D.C.: Delta Systems, Inc. and ERIC Clearinghouse on Languages and Linguistics.

Nancy Cloud, Fred Genesee, and Else Hamayan. (2000). Dual Language Instruction. Boston, Massachusetts: Heinle & Heinle.

Josefina Tinajero & Robert DeVillar (eds.), (2000). The Power of Two Languages 2000: Effective Dual-Language Use Across the Curriculum. New York: McGraw Hill.

Kathryn Lindholm-Leary. (in press). Dual Language Education. Avon, England: Multilingual Matters.

**This book discusses the theory and research underlying the dual language education model, its key features in greater detail, and research results from studies of teachers, parents, and students.**

## **Organizations that disseminate information about dual language education**

National Clearinghouse for Bilingual Education  
[www.ncbe.gwu.edu](http://www.ncbe.gwu.edu)

Center for Research on Education, Diversity and Excellence  
[www.crede.ucsc.edu](http://www.crede.ucsc.edu)

Center for Applied Linguistics  
[www.cal.org](http://www.cal.org)  
[www.cal.org/db/2way](http://www.cal.org/db/2way)  
(dual language program information)

National Association for Bilingual Education  
[www.nabe.org](http://www.nabe.org)  
Many state associations for bilingual education also have information (e.g., California Association for Bilingual Education, Texas Association for Bilingual Education).

## **Videotapes — many schools have developed videotapes describing their programs**

Learning Together, Center for Applied Linguistics,  
[www.cal.org](http://www.cal.org)

Juntos! Into the Future: Two-Way Bilingual Immersion at River Glen Elementary School, San Jose Unified School District,  
[www.sjUSD.k12.ca.us](http://www.sjUSD.k12.ca.us)

The Korean/English Dual Language Program. Los Angeles Unified School District, Asian Pacific and Other Languages Office,  
[www.lausd.k12.ca.us/lausd/offices/bilingual/apolo.html](http://www.lausd.k12.ca.us/lausd/offices/bilingual/apolo.html)

Osborne School, Turlock School District,  
[www.turlock.k12.ca.us](http://www.turlock.k12.ca.us)







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National Clearinghouse for Bilingual Education  
Center for the Study of Language and Education  
Institute for Education Policy Studies  
Graduate School of Education and Human Development  
The George Washington University

Suite 200, 2011 Eye Street, NW  
Washington, DC 20006  
(202) 467-0867  
[www.ncbe.gwu.edu](http://www.ncbe.gwu.edu)