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## Why This Book?

The growing number of English language learners (ELLs) in our schools poses increasing challenges and opportunities to U.S. educators and policy makers. A generation or two ago, the achievement of children who came to school knowing little or no English was hardly a national issue. Today, it is. Between 1979 and 2007, the number of school-age children (5- to 17-year-olds) who spoke a language other than

- Why is it important for educators to have a solid understanding of what research says about improving the achievement of English language learners?
- What kind of research on ELLs is discussed in this book?
- What two reports, published in 2006, provide the most comprehensive look at this research to date?
- What is this book's goal?
- Which question or issue has historically dominated research and debate about the education of ELLs?
- What other questions and issues are also important for educators to understand? English at home nearly tripled, from less than 4 million to almost 11 million; children who speak a language other than English now constitute over 20 percent of all children ages 5 to 17 (Planty et al., 2009).

Not all of these students are limited in their English proficiency, of course. But many are, and the ELL population in U.S. schools is growing fast. In 1990, one of every 20 public school students (5 percent) in grades K-12 was limited in English proficiency. Today there are over 5 million ELLs-one in nine, or more than 10 percent of the school-age population. The number of ELLs has grown more than 150 percent since 1990, a period when the overall school population increased by much less (Goldenberg, 2008). Figure 1.1 shows the rate of increase of ELLs between 1989-1990 and

Figure 1.1 Percent Change in Non-ELL and ELL School Enrollment, 1989 to 2006


Source: The National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs, U.S. Department of Education.

2005-2006 in comparison to the much lower rate of increase in the general school-age population.

Moreover, states not typically associated with English learners-South Carolina, North Carolina, Tennessee, Arkansas, and Indiana-saw an increase in the ELL population from nearly 300 percent to nearly 700 percent in the decade between 1995-1996 and 2005-2006 (http:/ /www.ncela.gwu.edu/faqs). No part of the country remains unaffected by the large increase in ELLs. Even Appalachia has experienced an influx of students from a wide variety of language backgrounds-among them, Spanish, Serbian, Vietnamese, Japanese, and Arabic (Marcus, Adger, \& Arteagoitia, 2007). Readers might further be surprised to find out that most ELLs were born in the United States. Seventy-six percent of elementary-age ELLs were born in the United States, as were 56 percent of ELLs in middle through high school. In fact, the parents of about one-fifth of ELLs were also born in the United States (Capps, Fix, Murray, Passel, \& Herwantoro, 2005).

Regardless of where they live and where they were born, far too many ELLs never fully master English and fare more poorly compared to children
who are English speakers (Goldenberg, 2008). Even those who have been in the United States for several years consistently underperform compared to their native-English-speaking peers. This discrepancy bodes ill for ELLs' future schooling and their vocational options. It also bodes ill for society as a whole, since the costs of large-scale underachievement among large sectors of the populace are very high (Natriello, McDill, \& Pallas, 1990).

## A NEW FOCUS ON ENGLISH LEARNERS

The number of English learners was much smaller 30 and 40 years ago, but there was also a different educational ethos: Children out of the Englishspeaking mainstream were at best second-class citizens. At worst they were invisible, left to "sink or swim" on their own. Thomas Carter (Carter, 1970; Carter \& Segura, 1979) and James Crawford (Crawford, 2004), among others, have provided excellent histories of how Spanish-speaking and other language-minority (students who come from homes where a language other than English is spoken) children fared in U.S. schools and why parents, community members, activists, and educators began to demand equitable treatment. Today, thanks to court cases, legislation, national and state accountability mandates, growing numbers, and increased acceptance that all children deserve a fair chance at educational success, many educators and policy makers are at least attempting to meet the challenge more productively, even if with considerable uncertainty-and not without controversy.

Passage of the No Child Left Behind (NCLB) Act in 2001, the foundational federal legislation governing federal policy in elementary and secondary education in the first decade of this century, raised the stakes for educators higher than ever. There has been increased pressure for all children to achieve at levels that will provide them with access to the educational, social, and economic mainstream. As part of NCLB's school accountability measures, schools cannot meet their Adequate Yearly Progress (AYP) goals unless all major subgroups at the school-including ELLs-meet achievement targets. Teachers of ELLs, as well as site and district administrators, are under tremendous pressure. Many argue that the pressure is unfair, is misguided, and has done more harm than good. Moreover, as of this writing, it is unclear in what form, if any, NCLB will be reauthorized and what the accountability requirements will be. Regardless, it is imperative that teachers, administrators, and policy makers understand the state of our knowledge regarding how to improve the achievement of students who arrive at our schools less than fully proficient in English. This is true with or without the high-stakes accountability of NCLB or any other legislation.

To help in the effort to improve outcomes for ELLs, two major governmentfunded reviews of the research were published in 2006: Developing

Literacy in Second-Language Learners: Report of the National Literacy Panel on Language-Minority Children and Youth (August \& Shanahan, 2006) and Educating English Language Learners (Genesee, Lindholm-Leary, Saunders, \& Christian, 2006), prepared by researchers associated with the Center for Research on Education, Diversity, and Excellence (CREDE). These reports have synthesized a complex and difficult research base to try to provide educators, policy makers, and maybe even researchers with a clear view of the current state of knowledge on promoting academic success among ELLs. The reports, like many aspects of the research base itself, are complex, technical, and filled with theoretical and conceptual issues that are challenging to sort through. We decided to base this book largely on these two reports (supplemented, as we will point out, with other sources) because they are the most comprehensive and ambitious reviews of the research pertaining to the education of ELLs that exist. ${ }^{1}$

We wish to be clear that we use the term research in a very specific way. As most people know, there are many different types of educational research. There are quantitative and qualitative, experimental and correlational, ethnographic and observational, survey and interview, and many other types. The research we focus on here is that which includes at least some data on some type of student educational outcome. We define outcome very broadly, since there are many possible educational outcomes. There are tests, certainly, both standardized and nonstandardized. But there are outcomes in terms of student behavior, engagement, motivation, writing, and speaking, to name just a few. Any student behavior or by-product that can reasonably be construed to be the result of, or influenced by, some educational process (e.g., a teaching strategy) or educational context (e.g., a particular classroom environment) can be construed as an outcome.

We have heard, read, and even been in too many unproductive discussions where someone immediately equates outcomes with standardized test scores. The two are not synonymous. Standardized test scores are a type of outcome that provides a certain type of information about students. But, obviously, standardized tests are limited. Any single way of trying to gauge what students know and can do (or want to do and will do) is limited. This is why we take a very broad view of what constitutes an outcome. Those who actually read what we say about the studies we discussrather than assume we only consider experiments evaluated with standardized tests-will realize that we draw on a wide range of studies that define and gauge outcomes in various ways. Reducing the belief that we need to look at outcomes to an argument for or against standardized test scores misses the point. In fact, it does a great disservice to furthering our understanding in this and other critical educational areas.

[^0]In this book we consider studies that try to determine the effect of an educational process or context on some sort of student outcome. To do this, a study actually had to collect data on one or more student outcomes. It might surprise readers to know that many studies do not collect data, much less report findings, relative to student outcomes-at least not directly. They might describe and analyze a classroom or classroom practices and make some judgment about whether it is a desirable place for students. Or they might compare school and home environments and analyze what about the school might help or hinder the learning of different students. For the most part we do not draw on studies such as these because they cannot tell us very much about the relationship between educational processes or contexts on the one hand and student outcomes on the other. They can provide insights into complex educational processes, but they do not directly link these processes to educational outcomes for students.

We draw on a range of study types. No study was excluded from consideration because it was qualitative; although most of the studies discussed here are quantitative, and quite a few had some sort of experimental design, we also draw on qualitative studies, as long as they met the criterion that data were collected and reported on some sort of student outcome. There was no requirement that only experiments or standardized tests be used. The requirement was that the researcher, in some way, collect data on student outcomes-broadly defined-and relate them to some educational process, usually at school.

## THIS BOOK'S GOAL

The goal of this book is to make transparent for educators, policy makers, and any interested reader what these reports and some of the research that has appeared since their publication say about promoting academic success among ELLs. The need for such a book became manifestly clear when one of us (Coleman) conducted a study on how school districts decided on programs for ELLs. To an alarming degree (although not unique in education), decisions were driven by theoretical orientation or personal preference and philosophy. Some district-level decision makers, such as the one quoted below, understood the gaps in the research (all quotes taken from Coleman, 2006):

There are only theories about what works. Until the research gives us some definitive answers, we're just guessing. There's good things out there, but we need the best. . . . Data will make the difference. It will tell us if Avenues [an English language development program] is making a difference.

Others expressed frustration over lack of a coherent, focused, consistent approach to educating English learners:

I went to the accountability institute from the Department of Education, and they don't have the plan. We need a plan! There's no plan, no prototype, a lot of problems discussed and a lot of expectations, and it's been that way for 20 years. There are a lot of problems. They tell us to do it, but they don't tell us how. They don't know how, and they have nothing to give us. We need to find out what works and have some consistency. A well-trained teacher, a good program, and consistency.

Still others did not see research as much of an issue, program choices being a matter of philosophy:


#### Abstract

We believed in the philosophy of teaching English through content. It had a good reputation. I had heard a lot of schools were using the program. You hear about Into English [another English language development program] all the time. Not about data or research. It was more about using it. The beginning pages talk about research, but it didn't really affect the decision. . . . It could be better, but it's good enough, in terms of what's available. It does what we need.


Or, consider the following comment:
I'm sure the research was included. Its reputation [influenced us], not outcome data. I don't know, we agreed with the philosophy because it fits in with the SDAIE [specially designed academic instruction in English] strategies and BICS [basic interpersonal communicative skills] and CALP [cognitive academic language proficiency]. . . . In my master's class we thoroughly reviewed ELD programs, and Into English came out on top. Everyone agreed.

Educators must have a better basis than they do now for making decisions about programs and policies for English learners. This book attempts to help provide such a basis. Knowing the research base includes understanding what the research supports but also what the research does not support, either because a particular practice has been discredited or because there is no credible research to help resolve an issue. Understanding the current state of knowledge also includes understanding key controversies and uncertainties. We do not dwell on the controversies and uncertainties, but they are unavoidable, particularly in a field that has historically been politically volatile and theoretically complex, even murky.

We will offer practical suggestions based either on the research or on "best guesses" in the absence of clear research. Each chapter also contains a small scenario to illustrate how some of the recommendations would
look in practice in an actual classroom or school. Chapter 8 has scenarios that integrate recommendations relevant to each of the previous chapters. The scenarios in all the chapters are taken from actual teachers' lessons and schoolwide models that were observed during school site visits while conducting research over the past four years. In some cases, particularly in Chapter 8, there are composite illustrations drawn from the best practices of several teachers or schools to show the integration of several elements such as instructional strategies, cultural awareness, and schoolwide implementation practices.

However, this book is neither a manual nor a compendium of teaching strategies. Our hope, rather, is that it will help educators and policy makers adopt or develop policies and programs that promote much higher levels of success for English learners.

Nearly all of this book's content will draw from the two reports mentioned earlier. Researchers on the panels spent two to three years locating, reading, evaluating, and synthesizing research from the preceding 20 to 25 years. The work of these panels provides the essential core for what we write here. The two reports overlap substantially; most important, they reviewed research published from about 1980 to about 2003 on ELLs. The goal of each report was to try to determine what we know from research about improving educational outcomes for these students, that is, what we can do to help them succeed in school. The reports differ in important respects. For example, the National Literacy Panel (NLP) focused exclusively on literacy, whereas the CREDE report looked at a broader range of outcomes; the NLP considered literacy in L1 (the child's native language) and L2 (the societal language the child was acquiring), which, depending on where a study was conducted, was not necessarily English. The CREDE report only looked at outcomes when L2 was English. There were also some methodological differences in how the reviews were conducted and what studies were deemed adequate for inclusion. Some of these issues are noted below and throughout the book when relevant to the issue being addressed. Table 1.1 provides a more detailed comparison of key aspects of the two reports.

This is an evolving field. There have been some new developments since the publication of the studies that informed these reports, although nothing that we are aware of that would significantly change our recommendations. To the extent we can, we draw from published sources and ongoing research to try and round out the picture or fill in gaps. We cite relevant studies that appeared after the NLP and CREDE review period (approximately 1980 to about 2003). For example, early reading intervention studies in both English and Spanish have shown the effectiveness of intensive and focused small-group instruction to help children who are at risk for reading difficulties (see Chapter 3); an oral English language intervention has shown promise as a way of accelerating English language development, whether children are in an English immersion or a bilingual program (see Chapter 4).

Table 1.1
Comparison of National Literacy Panel (NLP) and Center for Research on Education, Diversity and Excellence (CREDE) Reports

|  | NLP | CREDE |
| :--- | :--- | :--- |
| Outcomes of interest | Literacy | Oral language, literacy, <br> academic achievement |
| Language of <br> outcome measures | L2 (usually English) for some <br> chapters; L1 and L2 for others | English only |
| Included studies of <br> foreign language <br> acquisition? | Generally no; yes in some <br> chapters but only English as a <br> foreign language | No |
| Country where <br> studies were <br> conducted | Worldwide | United States only |
| Language in which <br> studies were <br> published | English | English |
| Consistency of <br> search criteria across <br> chapters | Varied by chapter | Consistent |
| Ages | 3-18 years old | PreK-12th grade |
| Dates of study <br> publication | 1980-approximately 2002 | "The last 20 years" |
| Type of publications | Peer-reviewed journal articles; <br> some chapters included tech <br> reports and dissertations; no <br> books included | Peer-reviewed journal <br> articles and selected <br> technical reports |
| Sethodological <br> criteria for study's <br> inclusion | For experiments or quasi- <br> experiments, control or <br> comparison group and use of <br> either random assignment or <br> matching criteria to establish <br> comparability. Each group sample <br> included more than four subjects. <br> Programs cited in Chapter 14 | Lescribed, conclusions <br> supported by the <br> evidence; almost all <br> studies quantitative |
| Study sample <br> criteria for study's <br> inclusion | Language-minority students either <br> had to comprise 50 percent of <br> sample or outcome data had to be <br> disaggregated for these students. | Not specified |
| quesproprion, research to the |  |  |$|$| Research design |
| :--- |


|  | NLP | CREDE |
| :--- | :--- | :--- |
|  | ("Language of Instruction") had <br> at least a six-month span between <br> the onset of instruction and post- <br> tests. For correlational studies, <br> samples had to consist of 20 <br> subjects or more. No comparable <br> inclusion criteria for qualitative <br> studies, which were prominent in <br> three chapters. In Chapter 11 <br> ("Sociocultural Influences"), <br> studies had to report data on <br> some student outcome. |  |
| Number and <br> specification of <br> search procedures | Seven searches plus at least five <br> supplementary searches of ERIC, <br> PsycInfo, LLBA, Sociological <br> Abstracts, MEDLINE, MLA; <br> refereed articles from major <br> reviews (e.g., August \& Hakuta); <br> table of contents of frequently <br> cited journals; NCELA Web site | ERIC, PsycInfo, LLBA <br> searches; hand searches <br> of select education <br> journals; searches of <br> bibliographies of <br> reviewed articles |

Essentially, then, this book is a synthesis and summary of the two reports (with some key updates), written in a way to address the questions and issues practitioners and policy makers frequently pose. We offer practical recommendations at the end of each chapter and in the book's concluding chapter, supported by the research (or at least our interpretation of it). But where there is no research base to answer a particular question or resolve an issue, we say so. We also try to distinguish between recommendations that are empirically grounded-that is, based on specific studiesand recommendations based on our opinions or best guesses, although sometimes the distinction is difficult to maintain and direct application of findings to recommendations less than straightforward.

Many potentially important new developments have come onto the scene in the past few years. For example, we've seen promising programs and approaches for English language development (Dutro, 2003) and English language instruction to support content area instruction (Schleppegrell, Greer, \& Taylor, 2008). No evaluations have been published yet, however. Another example is in the area of assessment. The California English Language Development Test (CELDT), first administered in 2001 and under continual development since, might prove to be a significant advance in assessing English language proficiency. Unpublished technical reports (CTB McGraw-Hill, 2005), however, indicate problems with the cut scores used to determine level of language
proficiency (e.g., early intermediate, intermediate) and even whether a student is to be classified ELL or English proficient (Stokes-Guinan \& Goldenberg, in press). Unfortunately, assessing English language proficiency, particularly in a way that is instructionally useful for teachers, poses significant challenges with which educators and researchers around the country continue to grapple (Abedi, 2007, 2008).

## WHAT ABOUT BILINGUAL EDUCATION?

The field of language-minority education and research has traditionally been dominated by the bilingual education issue. For years, the key question-sometimes it seemed the only question-was: What should be the language (or languages) of instruction for children who come to school less than fully proficient in English? Should they be instructed in their home language (for some period of time or even throughout their school careers)? Or should they be put into English instruction the moment they walk into school? Or somewhere in between?

This already complex issue is further complicated by the question of what our goal is for these students. If the goal is promoting achievement only in English, then the question becomes how much (if any) primarylanguage instruction is best for maximum achievement in English. However, if the goal is primary-language development and literacy in addition to English academic competence-that is, bilingualism and biliteracythen the answer is likely to be different. Many would argue-and we would agree-that bilingualism ought to be our educational goal (see, most recently, Gándara \& Rumberger, 2006), but clearly there is considerable disagreement over this.

The bilingual education question has been extremely controversial and the subject of court cases, state legislation, ballot-box initiatives, op-ed pieces, political statements, and a great deal of posturing and overheated rhetoric. It is a topic about which passions run high, largely because language is not just a technical issue of what instructional method works better. Language is about identity, culture, and history. For many language-minority persons in the United States (and elsewhere around the globe), maintenance of the native language is a way to affirm identity, culture, and history while counteracting discrimination, disempowerment, and disrespect. On the other hand, many U.S. English speakers (and some immigrants who subscribe to what is sometimes not very flatteringly called an "assimilationist" view) stake out a position that is the mirror image: Use-and learn-English. Leave the home language and culture at home to enter the mainstream and become "fully American" (see, for example, Rodriguez, 1982, for a well-known example that stirred a great deal of controversy nearly 30 years ago).

Leaving aside for the moment that using English in school exclusively might not be the way to maximize learning English and academic content in

English (we leave this to Chapter 2), it is understandable how these two contrasting outlooks have dominated discussions and research about ELL children's schooling. However, the overwhelming focus on language of classroom instruction has served to obscure many other issues and important questions about the education of English learners. This is unfortunate because, as important as language of instruction is, there are many other issues that are probably at least as important. These include quality of instruction (in either the home language or English); promoting oral English proficiency; assessment; and school, district, home, and family factors that influence achievement. The two reports we draw from reviewed a wide range of studies and considered a large number of important questions aside from those having to do with language of instruction. We will do the same.

## ELLs IN THE UNITED STATES: POPULATIONS AND PROGRAMS

The need for valid and reliable information about how to promote ELLs' academic success grows in direct proportion to the number of ELL students in our schools. It might be useful for the reader to have a general sense of the national picture.

According to a survey conducted by the U.S. Department of Education in 2000-2001 (there has been no comparable survey since), students who are limited in their English proficiency come from more than 400 different language backgrounds (Kindler, 2002). Nearly 80 percent were Spanish speakers, but as shown in Table 1.2, hundreds of thousands of English learners speak many other languages. Although the percentages seem tiny in comparison to Spanish, .5 percent of the over 5 million school-age English learners, for example, is more than 25,000 students.

Because the ELL population is not evenly distributed across the country, different states and regions have greater or lesser concentrations of ELLs than others, so the national figures obscure the fact that certain language groups tend to be concentrated in different parts of the country. For example, while speakers of Russian make up less than 1 percent of the U.S. ELL population, there are counties in southern Washington and northern Oregon where the concentration is far greater. Same for the Khmer-speaking population: Nationally these students make up a very small percentage of the ELL population, but in some schools in Long Beach, California, Khmer speakers are 8-10 percent of the ELL population. Individual schools can thus feel an impact from different language groups that national figures do not reveal. (See http://www.mla.org/census_main for a Modern Language Association interactive map showing the locations and number of speakers of 33 languages and language groups in each U.S. state, Washington, D.C., and Puerto Rico.)

Table 1.2 Most Frequent 15 Languages Spoken by ELLs

|  | Home Language | Estimated Percentage of <br> ELLs Who Speak This <br> Language | Approximate Number of <br> ELLs Who Speak This <br> Language* $^{*}$ |
| ---: | :--- | :---: | :---: |
| 1 | Spanish | 79.05 | $4,031,300$ |
| 2 | Vietnamese | 1.95 | 99,600 |
| 3 | Hmong | 1.55 | 79,281 |
| 4 | Chinese, Cantonese | 1.02 | 52,055 |
| 5 | Korean | 0.97 | 49,258 |
| 6 | Haitian Creole | 0.93 | 47,316 |
| 7 | Arabic | 0.91 | 46,244 |
| 8 | Russian | 0.82 | 41,627 |
| 9 | Tagalog | 0.75 | 38,239 |
| 10 | Navajo | 0.59 | 30,280 |
| 11 | Khmer | 0.59 | 30,041 |
| 12 | Chinese, Mandarin | 0.49 | 25,065 |
| 13 | Portuguese | 0.46 | 23,287 |
| 14 | Urdu | 0.41 | 20,892 |
| 15 | Serbo-Croatian | 0.38 | 19,227 |

*Based on an estimated 5.1 million school-age ELLs (NCELA, 2008) and assuming percentages have remained the same since the survey year.
Source: Languages and percentages from Kindler's (2002) Survey of the States' Limited English Proficient Students.

The language-minority population in the United States is highly diverse, and we should obviously avoid stereotyping individuals. However, it is a fact that language minorities tend to come from lower socioeconomic backgrounds than the English-speaking U.S. population (www.census.gov/population/ www). Whereas nearly 85 percent of adults who speak only English have at least high school degrees, fewer than 50 percent of adults who speak a language other than English and speak English with some difficulty have high school degrees. A similar contrast exists for adults with at least college
degrees: Nearly 25 percent of English-only speakers have college or graduate degrees, but only 13 percent of individuals who speak another language and speak English with difficulty have college or graduate degrees. These numbers tell us nothing about why education levels are lower among language-minority adults (see "Correlation and Causation" section later in this chapter), only that they are. And this has implications for educators, since a relatively low level of parental education puts children at risk for relatively poor educational outcomes, independent of language spoken and English proficiency (Sirin, 2005).

Differences in the socioeconomic characteristics among the many language-minority populations in the United States are also important to recognize, although, again, we must avoid stereotyping-attributing an average or perceived characteristic to every member of a group. As we have seen, the huge preponderance of ELLs in the United States- 80 percentare of Hispanic or Latino origin. The second-largest group of ELLs (a little under 10 percent) is Asians, a far more diverse group since it includes people whose origins are in a continent with languages and cultures about as diverse as can be imagined. As Table 1.3 illustrates, the socioeconomic characteristics of Latinos and Asians are quite different. Moreover, there are differences within these groups such that, for example, Cambodians have a very different demographic profile than Koreans and Mexicans quite different from Cubans. From a statistical standpoint, students from groups with lower levels of education and family income will be at greater risk of poor school outcomes, regardless of the language they speak or how well they speak English. The point is that for many ELL students, the challenges they face go beyond becoming fully proficient in English.

Further complicating the picture is that ELLs are in many different types of programs that use students' home languages to a different degree, from not at all to very extensively. Four of the most commonly used program models for ELLs are the following:

- English immersion: All instruction is in English or substantially in English; there is no instruction in primary language (e.g., Spanish) language arts or any other academic area. Usually students have an ELD (English language development) class or period (formerly known as ESL, or English as a second language) specifically geared to developing English language skills.
- Transitional bilingual education: Instruction in language arts and other academic areas is provided in the home language (e.g., Spanish) for the first year to approximately three to four years of a child's schooling, then transitioning to instruction in English only. Programs often include an ELD class or period.
- Maintenance (or developmental) bilingual education (sometimes also called "late exit"): Instruction in language arts and other academic areas is provided in the home language throughout elementary


## Table 1.3

Education and Income Characteristics of Select Hispanic and Asian Populations

|  | Total <br> Population | Percentage of <br> High School <br> Graduates | Percentage <br> With a BA <br> or More | Per Capita <br> Income* | Percentage <br> Below <br> Poverty |
| :--- | ---: | :---: | :---: | :---: | :---: |
| White <br> non-Hispanic | $\mathbf{1 9 4 , 5 5 2 , 7 7 4}$ | $\mathbf{8 5 . 5}$ | $\mathbf{2 7 . 0}$ | $\mathbf{2 4 , 8 1 9}$ | $\mathbf{7 . 9}$ |
| Hispanic/ <br> Latino | $\mathbf{3 5 , 3 0 5 , 8 1 8}$ | $\mathbf{5 2 . 4}$ | $\mathbf{1 0 . 4}$ | $\mathbf{1 2 , 1 1 1}$ | $\mathbf{2 2 . 1}$ |
| Mexican | $20,640,711$ | 45.8 | 7.5 | 10,918 | 23.3 |
| Puerto Rican | $3,406,178$ | 63.3 | 12.5 | 13,518 | 25.1 |
| Cuban | $1,241,685$ | 62.9 | 21.2 | 20,451 | 14.3 |
| Salvadoran | 655,165 | 36.1 | 5.5 | 12,349 | 21.2 |
| Asian | $\mathbf{1 0 , 2 4 2 , 9 9 8}$ | $\mathbf{8 0 . 4}$ | $\mathbf{4 4 . 1}$ | $\mathbf{2 1 , 8 2 3}$ | $\mathbf{1 2 . 3}$ |
| Chinese <br> mainland | $2,314,537$ | 76.2 | 47.1 | 23,642 | 13.1 |
| Filipino | $1,850,314$ | 87.3 | 43.8 | 21,267 | 6.2 |
| Vietnamese | $1,122,528$ | 61.9 | 19.4 | 15,655 | 15.7 |
| Korean | $1,076,872$ | 86.3 | 43.8 | 18,805 | 14.4 |
| Cambodian | 171,937 | 46.7 | 9.2 | 10,366 | 29.8 |
| Hmong | 169,428 | 40.4 | 7.5 | 6,600 | 37.6 |

## *1999 dollars

Source: U.S. Census Bureau American FactFinder Fact Sheet for a Race, Ethnic, or Ancestry Group (from 2000 Census).
school, even once children have transitioned into English instruction for much of their school day. Programs often include an ELD class or period.

- Dual language bilingual education: 50-90 percent of instruction for ELLs and for English speakers in the same classroom is provided in the ELLs' home language; English instruction is gradually introduced so that by the end of elementary school the balance is $50-50$. Programs can include an ELD class or period.

There are other program configurations as well, such as "newcomer classes" designed for immigrant students new to the country and "pullout ELD or ESL classes," where students go with an ELD/ESL teacher for a period during the school day. These types of approaches can coexist with or augment other programs such as English immersion. (See Genesee, 1999, for a full description of these and other program alternatives for English learners.)

But what sorts of instructional environments are ELLs actually in? The question is difficult to answer, partly because of inconsistencies from state to state in how terms and programs are defined and reported. As shown in Figure 1.2, according to a 2001-2002 survey, 60 percent of English learners are in essentially all-English instruction: A fifth of these students-about 12 percent of all ELLs-are in all-English instruction and apparently receive no services or support at all related to their limited English proficiency

Figure 1.2 Instructional Language for ELLs


Note: Percentages are approximations, and there is wide variability within each segment.
"All-English instruction-at least some ELL support" might be an overestimate since "AllEnglish instruction-no ELL support" is probably illegal. See text for further details.
Source: Zehler, Fleischman, Hopstock, Stephenson, Pendzick, \& Sapru, 2003.
(Zehler et al., 2003). This figure might actually be an underestimate. It comes from school and district officials who could be reluctant to report that ELLs receive "no services," which is likely to be a violation of the 1974 Supreme Court decision in Lau v. Nichols (414 U.S. No. 72-6520, pp. 563-572) requiring schools to teach ELLs so that they have "a meaningful opportunity to participate in the public educational program" (p. 563).

The rest of ELLs in all-English instruction receive some amount of "LEP (limited English proficient, a term formerly used more widely for ELLs and still used in federal and some state statutes and regulations) services," which can include the use of aides or resource teachers, instruction in ESL or ELD, or content instruction specially designed for students with limited English proficiency. The remaining ELLs-about 40 percent-are in programs that make some use of their home language. Here again there is a wide range, with nothing being typical. In some cases, students receive one of several forms of bilingual education, such as the models identified earlier (transitional, developmental, or dual language). In other cases, students are taught academic content in English, and their primary language is used only for support (e.g., translations by an aide, explanations during or after class, or to preview material prior to an all-English lesson). Currently, there is no way to know the amount of home language support students receive or, most critically, the quality of the instruction and whether it promotes achievement.

What we do know is that on average, ELLs' academic achievement is much too low. On state and national tests, students who are learning English consistently underperform in comparison to their Englishspeaking peers (see Goldenberg, 2008, for statistics and further references). These discrepancies should be no surprise since ELLs are limited in their English proficiency, and the tests used to gauge their progress are typically in English. But there is no way to know whether ELLs tested in English score low because of lagging content knowledge and skills, limited English proficiency, other factors that interfere with their test performance-or some combination. Whatever the explanation, we must do a better job of providing English learners with the educational opportunities they deserve. As part of this effort, teachers, administrators, other school staff, and policy makers must understand the state of our knowledge regarding the achievement of these students-what we can claim we know and where we are lacking credible information. The purpose of this book is to describe this knowledge base, as clearly and comprehensively as possible.

## A WORD ABOUT RESEARCH AND STATISTICS

Our goal in this book is to provide an accessible account of the research base on English learners. We are writing for educators and policy makers,
not researchers, so we try to keep arcane matters of research and theory at arm's length. Unfortunately, much of what we can claim as "knowledge" is inextricably tied up with technical issues having to do with how research is conducted and the sorts of conclusions that certain studies or types of research permit. Therefore, we cannot completely avoid discussion of these issues. In order to not bog down the narrative, we will here go into some detail on two key methodological issues about which readers should be aware: first, the difference between correlation and causation; second, the problem of hidden influences, technically referred to as confounds. When these issues become relevant in one of the chapters, we will refer readers back to this section.

## Correlation and Causation

Many people recognize that correlation is not causation. In other words, just because two things (variables) go together does not mean one causes the other. Nonetheless, people-researchers included-routinely interpret correlations as demonstrating or implying a cause-and-effect relationship. Take, for example, the correlation between red wine and health. It turns out that drinking a glass or two of red wine each day is associated (that is, correlated) with health and longevity: People who drink moderate amounts of red wine have a lower risk of death. While many of us would like to interpret this association to mean that drinking red wine causes one to be healthier and live longer, in fact this has never been demonstrated. It is just as likely-and equally supported by the research since the data are all correlational-that healthier people also tend to drink moderate amounts of red wine. In other words, the wine itself might have no impact on health. It might be the other way around: Being healthy leads one to enjoy life more and imbibe a moderate amount of wine. As a recent New York Times ${ }^{2}$ article reported,

No study has ever proved a causal link between moderate drinking and a lower risk of death. . . . Moderate drinking may just be something healthy people tend to do, not something that makes people healthy.

More to the point of this book, consider English oral language proficiency and reading achievement in English (we take up this topic in Chapter 3, "Literacy Instruction in a Second Language"). To no one's surprise, the two are correlated: the better your English oral language skills, the better your English reading proficiency. But the question is, why? One presumably obvious explanation is that oral language proficiency

[^1]"causes" or helps promote reading competence; the better you can speak and understand a language, the better you will be able to read it and understand what you are reading. Conversely, the weaker your command of the oral language, the poorer your ability to read it.

But it could well be that once you get past a certain level of oral language proficiency, more oral language proficiency does not cause or promote better English reading achievement. Instead, the opposite might be true: Being a better reader might help make you a better speaker (and listener). Competent reading in English helps you learn more of the language, thereby promoting more advanced English oral language skills (e.g., vocabulary, narrative skills). As with the correlation between drinking wine and being healthy, the cause and effect could also go both waysoral proficiency promotes reading proficiency and reading proficiency promotes oral proficiency. Or, alternatively, neither causes the other, and instead both are the result of some common underlying language ability, which shows up in tests of oral language and reading proficiency.

The point is that the correlation itself says nothing about the direction of effect, that is, what causes what. It only tells you that two things-in this case, oral English proficiency and English reading proficiency-tend to go together (or in research speak, they "co-occur"). This distinction between correlation and causation is very important, since people want to draw practice and policy implications from correlations, but unless you know "what causes what" your practice or policy might have it backward or only partly right.

## Hidden Possible Influences <br> (Technically, Confounding Variables)

Let's say students who are in Program A do better on achievement measures than do students in Program B. The first thing that comes to mind is that Program A works better. But what if Program A for some reason tends to have more students from higher-socioeconomic-status (SES) homes? We already know that SES and achievement are correlated (although, as discussed above, correlation does not mean causation, and we don't know exactly why the two are correlated), so the achievement difference between Program A and Program B students might have nothing to do with the program itself. Instead it might be the result of Program A's having more students with higher SES, and these students, on average, tend to score higher on achievement tests.

In the field of language-minority research this problem shows up, but as is true in other fields of educational research, it is often not recognized. ELLs attend different types of language programs, such as English immersion, transitional bilingual education, two-way bilingual education, and so forth (described briefly earlier in this chapter). People have compared the academic performance of students in different types of programs, and
based on this, concluded which one works better. This seems reasonable enough until we consider that students who attend different types of programs might come from different types of families or differ from each other in ways that might influence their academic performance. For example, ELLs who attend two-way bilingual education programs (the goal of which is to promote bilingualism, biculturalism, and biliteracy) might come from homes where parents have somewhat higher education or have been in the United States longer or who speak more English to their children. We have in fact found this to be the case in research one of us has conducted (Goldenberg, 2006). These factors can very well affect children's academic achievement, irrespective of the program they are in. Or perhaps the two-way programs are deemed more challenging, and students who are less capable academically are either not placed in these programs or, if they are, tend to be removed if they are having academic difficulty. This too will affect comparisons between two-way programs and other programs.

The possibility of these hidden confounds is why "random assignment experiments" are usually considered the gold standard, that is, the preferred methodology for determining whether Program A (e.g., two-way immersion) works better than Program B (e.g., English immersion or transitional bilingual education). In a random assignment experiment, students are randomly assigned to a program. This makes it is less likely that subtle selection factors, known as confounds, can creep in and influence achievement, which in turn leads to erroneous conclusions about the relative effects of the programs. If there are differences between Program A and Program B students in a well-controlled and fully randomized experiment, we can be pretty confident that the differences are due to the program and not to a confounding factor.

Sometimes random assignment is not possible; in fact, random assignment is often not possible in schools. In this case, researchers will choose students who are already in different classrooms or schools and are either receiving different types of programs or are selected to receive different programs that will be compared. Aside from receiving different programs, these students should be as similar as possible to each other. This is sometimes called a quasi-experiment, since it is not quite a true experiment with randomization and other experimental controls. It is not ideal, since there could be hidden differences that do not show up until later. But at least if students are nearly identical in as many respects as possible, including their achievement before beginning the program, there is a greater chance that the comparison between programs will be valid.

The foregoing is generally important to keep in mind, since there are very few randomized studies in this research base, and to a surprising degree, researchers have not dealt directly with confounding variables. But this issue is also important for understanding one of the principle differences between conclusions reached by the NLP and the

CREDE reports. As we discuss in Chapter 2, the NLP concluded that although primary-language instruction ("bilingual education") has a positive effect on achievement in English, there was no basis for determining whether more time spent in primary-language instruction over a greater number of years produces better results than fewer years of primary-language instruction. The CREDE report, in contrast, concluded that more years in primary-language instruction leads to better results.

Yet regardless of the methodological complexities and nuances, the two reports converge on most findings and together contain considerable important information that we hope to help bring to a larger audience. We are convinced that students, educators, families, communities, and the country as a whole will be better served if educators know the contents of these reports and design policies and practices mindful of this content. But we must also recognize that there are big gaps in our understanding, as well as many unresolved issues and questions. We cannot shy away from this recognition; to the contrary, it is only by distinguishing among what we can say with some confidence, what we really have no good evidence for, and on what matters we have limited or imperfect understanding that we can make continued progress in enhancing educational opportunities for English learners. Absent this recognition, policy and practice will forever be subject to politics and predilections exclusively. Politics and predilections will always be with us in education, since education is never just about data. But valid and reliable data can help us practice better politics and inform our predilections.

## THE BOOK'S PLAN

Each of the next six chapters deals with a major topic in the education of ELLs. Chapter 2 discusses what we know about using ELLs' home language in their academic program; this is where we go into the bilingual education question, which has been so controversial for so long. In Chapter 3, we address learning to read in a language you are simultaneously learning to speak and understand; this is what happens when ELLs do not have primary-language instruction and instead-as is the case for most ELLsare in what is sometimes called "English immersion." Chapter 4 deals with learning to speak and understand English per se, an obviously very important part of these students' educational agenda. Chapter 5 is somewhat parallel to Chapter 3, which deals exclusively with literacy; Chapter 5 discusses academic instruction in English for areas of the curriculum aside from literacy. Chapters 6 and 7 address topics outside of the classroom. Chapter 6 discusses school- and district-level factors that have a bearing on ELLs' achievement; Chapter 7 takes on sociocultural factors, including the influence of families, primarily parents. Each of Chapters 2-7 ends with our
recommendations, based on our reading of the research or our "best guesses" when there is insufficient research. Finally, in Chapter 8, we attempt to synthesize across the chapters by presenting several illustrative scenarios, versions of which are also in individual chapters. We conclude with some suggestions for a broad framework to improve the academic achievement of students who come to school not speaking English well or even at all.

A note about citations in the text: When citing conclusions from the NLP (August \& Shanahan, 2006) or CREDE (Genesee et al., 2006), we typically cite the reports rather than individual studies the reports reviewed. We cite individual studies when we discuss them in detail. More generally, we have attempted to keep in-text citations (e.g., "August \& Shanahan, $2006^{\prime \prime}$ ) to a minimum to avoid distracting readers who are not interested in this level of detail.

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[^0]:    ${ }^{1}$ We would note that the National Literacy Panel report has had its critics (Cummins, 2009; Pray \& Jiménez, 2009).

[^1]:    ${ }^{2}$ New York Times, June 21, 2009. "Revised Wisdom, June 14-20." Available at http:/ /tinyurl .com/mcrn4r.

