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TESTIMONY TO THE SENATE EDUCATION COMMITTEE
REGARDING CAREER AND TECHNICAL EDUCATION PROGRAMS

May 19, 2008

Patty Quinzi, Legislative Counsel

Texas AFT supports well-designed, well-implemented career and technical education programs that significantly increase the academic rigor and relevance of the high school curriculum and expand what students can do with their futures. Texas AFT supports professional development opportunities for career and technical education teachers who need additional training to meet these new demands, which should include opportunities for workplace visits and joint curriculum development with teachers of traditional academic subjects to enhance the integration of academic and career and technical education.

Recommendations to Improve CTE Programs

While conducting our own site visits of successful CTE programs, Texas AFT has learned about unique strategies that CTE instructors use to reach disengaged students. At Cypress-Ridge High School, Mr. Peterson, the carpentry and welding instructor, told us about how co-teaching plays an important role in how he reaches bored or disinterested students. He said students who may not "get" ratios and other concepts in a math classroom can directly and meaningfully apply the concepts in the carpentry lab. By meeting with his students' math instructors, he is able to identify those students who require an additional or different learning approach for certain concepts. The carpentry course allows him sufficient latitude to address individual student needs in manners he thinks are most effective for the student. One example he gave was of a student who seemed distracted and bored in class. The student spent most of his time twirling his pen in class until Mr. Peterson explained the connections between cost of goods, sales price, profits, etc. This student made the connection that he could spend a couple of dollars on a project, then go to the flea market and sell it for \$20. The student became an entrepreneur once he realized what he was learning directly benefited him. The student became actively engaged and interested in the coursework, even spending additional time in the carpentry lab after school. As a result, both his math grades and his carpentry grades improved.

In the welding department, Mr. Peterson explained that his students help to build components for NASA's training operations. The project instills great pride on the part of students and NASA even sponsors a banquet to honor them at the end of the school year.

The automotive technology instructor at Cypress-Ridge high school, Mr. Monneyham, stays in close contact with Houston area car dealerships to ensure he is training students in the most advanced automotive techniques, which largely entail significant and complex computer advances. Because of the tremendous advantage of having a ready workforce at hand, auto dealers actually invest in individual students and provide two-year scholarships to community colleges and four-year colleges as well. The University of Houston currently offers a four-year degree in automotive technology. One automotive technology student we met was also enrolled

in AP Calculus. Mr. Mooneyham explained that automotive technology has advanced to the point that a solid math and science foundation is necessary for a student's success. Automotive technology is not the "shop class" of the past. He also noted that many of his former students out-earn him within a couple of years of graduating. Both instructors told us that these courses are in very high demand and there is a great need for additional qualified instructors.

We know that successful and efficient career and technical programs already exist and as the state seeks to improve and expand them, we have an opportunity to learn from their successes. Labor organizations already play an integral part in career and technology education in Texas and are well-equipped to assist in training programs within school districts. Texas labor organizations, through regional Central Labor Councils, have partnered with school districts and have been involved with successful career and technology programs throughout the state. Because of their regional nature, Central Labor Councils are keenly aware of local labor needs and how to address them. The Cypress-Fairbanks ISD Career and Technology Program provides an excellent example of this. By partnering with local labor councils and employers such as auto dealers and Cisco Systems, the program is able to identify workforce needs ahead of time in order to ensure that a trained workforce will be available when the need arises. Through this collaboration, labor councils and businesses can fund the students' training and apprenticeships, and the students earn certifications that will allow them to begin work immediately within several different fields.

In July, the Career and Technical Education Review Panel, established by H.B. 3485, will be making formal recommendations to the State Board of Education on how to increase the academic rigor of the career and technical education curriculum and to improve and increase participation in the program. However, this panel does not include any CTE instructors who have first-hand experience with student success in CTE programs. Before the State Board of Education convenes the TEKS writing teams for CTE standards, Texas AFT feels it is imperative to include on the teams those educators who have first-hand knowledge and experience with successful career and technical education programs. In addition, central labor councils should also be represented.

By incorporating the input of educators and the network of career and technology education experts in Central Labor Councils, we can ensure that students have choices that are attractive and attainable, while simultaneously ensuring the region's productivity. As this committee continues to examine CTE programs, we strongly urge the committee to secure the input and involvement of those who have a long and proven track record of guiding high school students into long and productive careers.

Teaching English Language Learners

What the Research Does—and Does Not—Say

Should students who are learning English spend the school day in classes where only English is spoken? Or should they be taught reading and other academic skills and content in their native language? Or should their classes be primarily in English, but include some explanations or materials in their native language? If their native language is to be used, how much native language instruction should they receive and for what purposes? And aren't there other issues we need to consider, aside from language of instruction? These are important questions, and anyone who can provide a quick answer is surely oversimplifying the issues. Some English language learners (ELLs) do not speak a word of English and are not literate in their native language. Others have some conversational English, but are not yet fluent, and in their native language they are not only literate, but have mastered a great deal of academic content. There will probably never be a formula for educating ELLs, just as there is no formula for educating students who already know English. What we can do is provide guidelines based on our strongest research about effective practices for teaching ELLs.

It's time to move beyond charged debates and all-too-certain answers. What students need is for educators and policymakers to take a more in-depth look, starting with what existing research does—and does not—say. In this article, Claude Goldenberg walks us through the major findings of two recent reviews of the research on educating ELLs. Given all the strong opinions one sees in newspaper op-eds, readers may be surprised to discover how little is actually known. What's certain is that if we conducted more research with ELLs, and paid more attention to the research that exists, we would be in a much better position.

And so, we bring you this article with four goals in mind. First, we hope that everyone who engages in debates about educating

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ELLs will become a little more knowledgeable and, therefore, will start taking a little more nuanced positions. Second, we wish to spur more research (and more funding for more research). Third, to keep the snake-oil salesmen at bay, we think it's best for educators to know what existing research cannot support. And fourth, we believe that what has been reasonably well established is worth knowing.

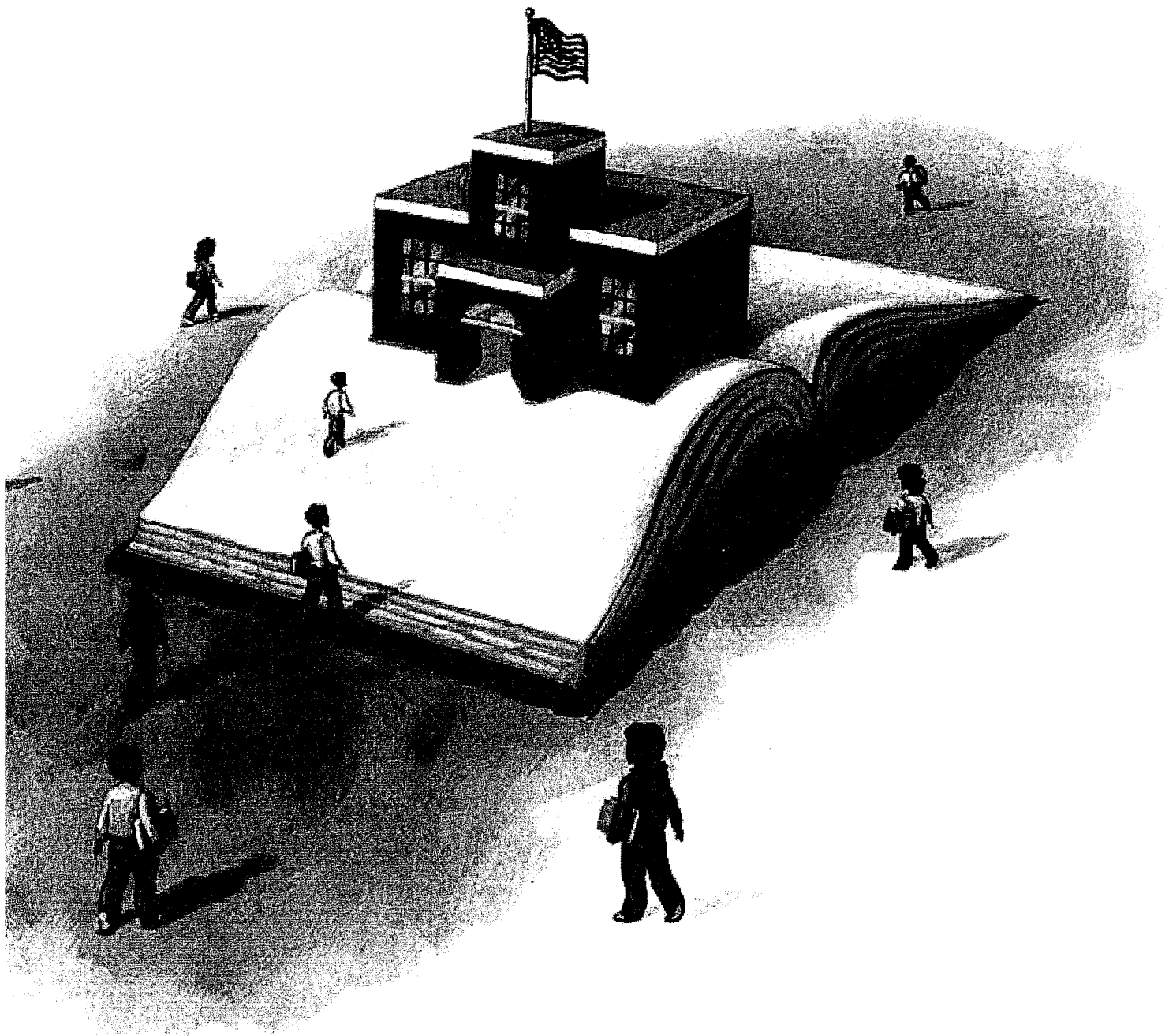
—EDITORS

BY CLAUDE GOLDENBERG

Imagine you are in second grade. Throughout the year you might be expected to learn irregular spelling patterns, diphthongs, syllabication rules, regular and irregular plurals, common prefixes and suffixes, antonyms and synonyms; how to follow written instructions, interpret words with multiple meanings, locate information in expository texts, use comprehension strategies and background knowledge to understand what you read, understand cause and effect, identify alliteration and rhyme, understand structural features of texts such as theme, plot, and setting; read fluently and correctly at least 80 words per minute, add approximately 3,000 words to your vocabulary, read tens if not hundreds of thousands of words from different types of texts; and write narratives and friendly letters using appropriate forms, organization, critical elements, capitalization, and punctuation, revising as needed.

And that's just before recess.

After recess you will have a similar list for math. And if you are fortunate enough to attend a school where all instruction has not been completely eclipsed by reading and math, after lunch you'll be tackling such things as motion, magnetism, life cycles, environments, weather, and fuel; interpreting information from diagrams, graphs, and charts; comparing and contrasting objects using their physical attributes; tracing your family history, comparing the lives of your parents and grandparents to your life; putting important events in a timeline; labeling the countries, the state where you live, mountain ranges, major rivers, and lakes on a map of North America; and learning how important historical figures such as Martin Luther King, Jr., Albert Einstein, Abra-



ham Lincoln, Cesar Chavez, and Sally Ride made a difference in the lives of others. The expectations created by state and district academic standards can be a bit overwhelming—for students and for teachers.¹

Now, imagine that you don't speak English very well. Your job is to learn what everyone else is learning, plus learn English. And it's not sufficient to learn English so you can talk with your friends and teacher about classroom routines, what you are having for lunch, where you went over the weekend, or who was mean to whom on the playground. You have to learn what is called "aca-

ademic English," a term that refers to more abstract, complex, and challenging language that will eventually permit you to participate successfully in mainstream classroom instruction. Academic English involves such things as relating an event or a series of events to someone who was not present, being able to make comparisons between alternatives and justify a choice, knowing different forms and inflections of words and their appropriate use, and possessing and using content-specific vocabulary and modes of expression in different academic disciplines such as mathematics and social studies. As if this were not enough, you eventually need to be able to understand and produce academic English both orally and in writing.² If you don't, there is a real chance of falling behind your classmates, making poorer grades, getting discouraged, falling further behind, and having fewer

educational and occupational choices.

Sound intimidating?

This is the situation faced by millions of students in U.S. schools who do not speak English fluently. Their number has grown dramatically just in the past 15 years. In 1990, one in 20 public school students in grades K-12 was an English language learner (ELL), that is, a student who speaks English either not at all or with enough limitations that he or she cannot fully participate in mainstream English instruction. Today the figure is 1 in 9. Demographers estimate that in 20 years it might be 1 in 4. The ELL population has grown from 2 million to 5 million since 1990, a period when the overall school population increased only 20 percent.³ States not typically associated with non-English speakers—Indiana, North Carolina, South Carolina, and Tennessee—each saw an increase in the ELL population of at least 300 percent between 1994-95 and 2004-05.⁴

ELL students in the U.S. come from over 400 different language backgrounds. What may come as a surprise to many readers is that most ELLs were born in the United States. Among elementary-age ELLs, 76 percent were born in the U.S. Among middle- and high-school students, 56 percent were born in this country. However, about 80 percent of ELLs' parents were born outside of the U.S.⁵

By far, the majority of ELLs—80 percent—are Spanish speakers. This is an important fact to bear in mind, since Spanish speakers in the U.S. tend to come from lower economic and educational backgrounds than either the general population or other immigrants and language minority populations.⁶ For example, nearly 24 percent of immigrants from Mexico and Central America are below the poverty level, compared with 9 to 14 percent of immigrants from other regions of the world (and 11.5 percent of the U.S. native-born population). Fewer than 40 percent of immigrants from Mexico and Central America have the equivalent of a high school diploma, in contrast to between 80 and 90 percent of other immigrants (and 87.5 percent of U.S.-born residents). Consequently, most ELLs are at risk for poor school outcomes not only because of language, but also because of socioeconomic factors.

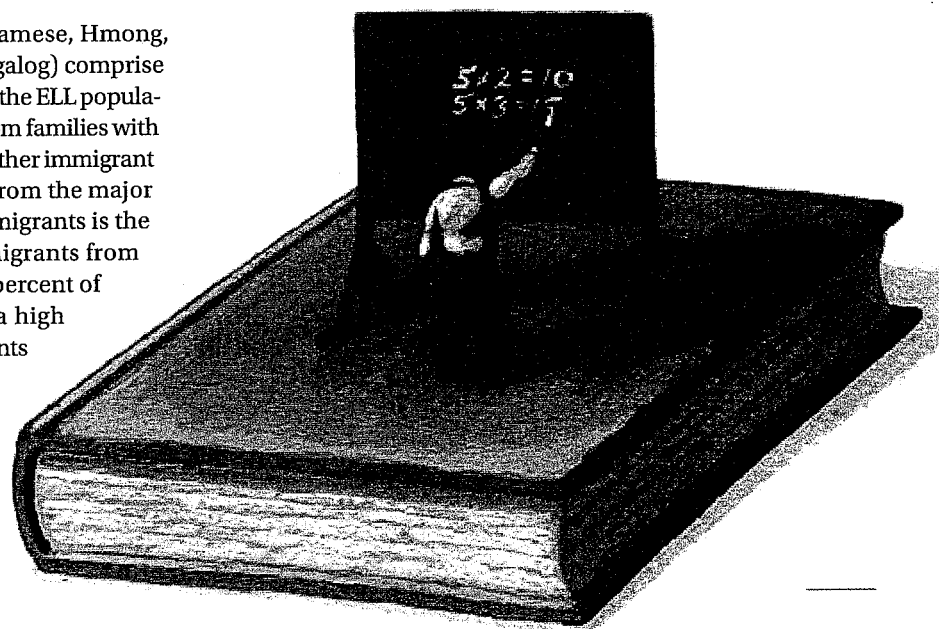
Speakers of Asian languages (e.g., Vietnamese, Hmong, Chinese, Korean, Khmer, Laotian, Hindi, Tagalog) comprise the next largest group—about eight percent of the ELL population. Students of Asian origin tend to come from families with higher income and education levels than do other immigrant families. For example, among immigrants from the major world regions, the poverty rate of Asian immigrants is the second lowest (at 11.1 percent); only immigrants from Europe have a lower poverty rate. Over 87 percent of Asian immigrants have the equivalent of a high school diploma, the highest among immigrants from major world regions.⁷ But these figures hide the tremendous diversity within the Asian populations in the U.S. For example, 50 percent or fewer Cambodian, Laotian, and Hmong adults in the U.S. have completed the equivalent of high school and fewer than 10 percent have

a college degree. In contrast, Filipinos, Indians, and Japanese in the U.S. have high school completion rates around 90 percent. Over 60 percent of Taiwanese and Indians in the U.S. have college degrees.⁸

What sort of instructional environments are ELLs in? This question is difficult to answer, partly because of definitional and reporting inconsistencies from state to state.⁹ The most recent national data come from a 2001-02 school year survey.¹⁰ To the extent the portrait is still accurate six years later, a majority of

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English learners—approximately 60 percent—are in essentially all-English instruction: one-fifth of these students—about 12 percent of all ELLs—apparently receive no services or support at all related to their limited English proficiency;* the other four-fifths—nearly 50 percent of all ELLs—receive all-English instruction, but with some amount of “LEP services.” (ELLs were formerly called “LEP” or limited English proficient; the term is sometimes still used.) “LEP services” can include aides or resource teachers specifically for ELLs, instruction in English as a second language (ESL), and/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, but it is impossible to say what is typical. In some cases, students receive one of several forms



of bilingual education, a term that describes any instructional approach that teaches at least some academic content (e.g., reading or science) in the native language in addition to teaching students academic content in English. Sometimes teaching academic content, such as reading, is just for a year or two as students transition to all-English instruction; sometimes it is for several years (e.g., through the end of elementary school or into middle school) to develop bilingualism and biliteracy. In other cases, students are taught academic content in English, but their primary language is used for “support,” such as translations by an aide, explanations during or after class, or to preview material prior to an all-English lesson.¹¹ Currently, there is no way to know the amount of support students receive or, most critically, the quality of the instruction and whether or not it is helpful for student achievement.

What we do know is that on average, ELLs’ academic achievement tends to be low. On the 2007 National Assessment of Educational Progress (NAEP), fourth-grade ELLs scored 36 points below non-ELLs in reading and 25 points below non-ELLs in math. The gaps among eighth-graders were even larger—42 points in reading and 37 points in math. Those are very large gaps. In fact, the gaps between ELLs and non-ELLs are 3 to 18 points larger than the gaps between students who are and are not eligible for free or reduced-price lunch.¹²

These discrepancies should be no surprise since ELLs are limited in their English proficiency, and the tests cited here are in English. But there is no way to know whether ELLs tested in English score low because of lagging content knowledge and skills, or because of limited English proficiency, or because of other factors that interfere with their test performance—or some combination. Whatever the explanation for these achievement gaps, they bode ill for English learners’ future educational and vocational options. They also bode ill for society as a whole, since the costs of large-scale underachievement are very high.¹³ Teachers of ELLs are thus under tremendous pressure. It is imperative that they, as well as administrators and other school staff, understand the state of our knowledge regarding how to improve the achievement of these students. Unfortunately, the state of our knowledge is modest. But what is known offers some useful guidance for educators to improve the academic success of English language learners.

My aim in this article is to summarize key findings of two major reviews of the research on educating English learners that were completed in 2006—one by the National Literacy Panel, or NLP,¹⁴ the other by researchers associated with the Center for Research on Education, Diversity, and Excellence, or CREDE.¹⁵ These reviews represent the most concerted efforts to date to identify the best knowledge available and set the stage for renewed efforts to find effective approaches to help English learners succeed in school. As needed, I will also reference additional research that appeared after the

* This figure might 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, p. 563-572) requiring schools to teach ELLs so that they have “a meaningful opportunity to participate in the public educational program” (p. 563).

years covered by the NLP and CREDE reviews.

As companions to this article on what we do know about educating ELLs, sidebars explore critical questions that have yet to be answered (see p. 12) and possible instructional modifications that might help ELLs achieve at levels more comparable to that of their English-speaking peers (see p. 18). I encourage educators to read these sidebars as carefully as they read this article—especially before adopting programs that promise extraordinary results.

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The NLP comprised 18 researchers with expertise in literacy, language development, the education of language minority students, assessment, and quantitative and qualitative research methods. The NLP, whose work took nearly three years, identified over 3,000 reports, documents, dissertations, and publications produced from approximately 1980 to 2002 as candidates for inclusion in its review. Fewer than 300 met the criteria for inclusion: they were empirical (that is, they collected, analyzed, and reported data, rather than stated opinions, advocated positions, or reviewed previous research), dealt with clearly identified language minority populations, and studied children and youth ages 3-18.

The CREDE report was produced over two years by a core group of four researchers (and three co-authors), all of whom had been engaged in language minority and language research for many years. As did the NLP, the CREDE panel conducted literature searches to identify candidate empirical research reports on language minority students from preschool to high school, but their searches were not as extensive as the NLP’s. Approximately 200 articles and reports comprised the final group of studies the CREDE panel reviewed and upon which they based their conclusions. The studies the CREDE panel reviewed were published during approximately the same period as the studies the NLP reviewed.

Although they covered a lot of the same terrain, the CREDE and NLP reports differed in some ways. For example, the CREDE report only examined research conducted in the U.S. and only took into consideration outcomes in English; the NLP included studies conducted anywhere in the world (as long as they were published in English) and took into consideration outcomes in children’s first or second language. The CREDE panelists included quantitative studies (experiments or correlational research) almost exclusively, whereas the NLP also included a

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Critical Questions

What the Research Does Not Say—Yet

As discussed throughout the main article, current research offers some solid information that should help educators increase English learners' achievement. But many critical questions remain unanswered. What follows is in no way an exhaustive list. Rather, it is a brief look at three groups of questions that educators and others frequently ask, and that need to be answered.

Bilingual Reading Instruction Helps, but in What Settings? With Which Students? For How Long?

Beyond the finding that primary language reading instruction promotes reading achievement in English (and in the primary language), there are more questions than answers. The NLP and CREDE syntheses should be catalysts to untangling the role of primary language instruction in ELLs' education and serve as the platform from which to ask important questions. Is primary language instruction more beneficial for some learners than for others? For example, those with weaker or stronger primary language skills? Weaker or stronger English skills? Is it more effective in some settings and with certain ELL populations than others? What should be the relative emphasis between promoting knowledge and skills in the primary language and developing English language proficiency? What level of skill in the students' primary language does the teacher need to possess in order to be effective? In an English immersion situation, what is the most effective way to use the primary language to support children's learning? We presently cannot answer these questions with confidence. Individual studies might point in certain directions, but we lack a body of solid studies that permits us to go beyond the general finding about the positive effects of primary language instruction on reading achievement in English.

We also cannot say with confidence how long students should receive instruction in their primary language. This is a key difference between the NLP and CREDE reports. The CREDE synthesis concluded that more primary language instruction over more years leads to higher levels of ELL achievement in English. This conclusion was strongly influenced by studies and evaluations of "two-way bilingual education," in which

children from two language groups (e.g., Spanish and English) participate in a program designed to develop bilingualism and biliteracy in *both* groups. There are different two-way models, but they all involve some combination of first and second language instruction throughout elementary school; some go through middle and high school. Evaluations have been very positive, and ELLs in these programs seem to do very well, possibly better than students in shorter-term bilingual programs (three or fewer years).¹ Thus, CREDE researchers concluded that the longer ELLs received instruction in a mix of their first language and English, the better their achievement in English.

The NLP, however, did not include these longer term studies because they did not have adequate experimental controls. The problem is that these studies did not make sure that the achievement of children in contrasting programs (e.g., two-way bilingual, transitional bilingual education, or English immersion) was equivalent at the start of the study or that children in different programs had the same demographic characteristics (e.g., parental education and level of English use in the home). Pre-existing differences could create the false impression that one program is better than another. For this reason, the NLP only included well-controlled studies in its meta-analysis; and because the well-controlled studies were relatively short term, the NLP reached no conclusions about the impact of length of time students are in primary language instruction.

Can ELLs' Oral English Development Be Accelerated? How?

The NLP and CREDE reports reached similar conclusions regarding effective instructional practices for ELLs. This is good news. We need to find points of agreement in this complex and contentious field. But there is still a great deal that we do not know. There is one area in particular in which more research is desperately needed: oral English development, and specifically, whether and how it can be accelerated. It should be apparent that providing ELLs with English language development instruction is critically important. There are some studies that have looked at promoting various aspects

of oral language, such as vocabulary or listening comprehension (both of which can be enhanced through instruction), but the CREDE review did not find any studies that addressed how or even whether progress in the acquisition of English can be accelerated. (The NLP did not address this issue.)

ELLs are thought to progress through a series of levels of English proficiency. The exact nature of this progression has not been fully mapped out, but generally we think of four or five levels of English language development (ELD), from total lack of English to native-like proficiency. In one influential conceptualization, there are three phases in the beginner to early intermediate period: preproduction (sometimes called the "silent period"), early production (students can say one- or two-word utterances), and speech emergence (longer phrases and sentences). In the scheme used by California and other states, there are five levels—beginning, early intermediate, intermediate, early advanced, and advanced.

Progress from the beginning (or preproduction) stage to the point where students are approaching native-like proficiency seems to take at least six years for most students (e.g., from kindergarten to grade 5 or later; there is variability from one person to the next, so these numbers represent general trends). ELLs seem to progress from beginning to intermediate levels more rapidly (in roughly two to three years) than they do from intermediate to full proficiency, which can take an additional three, four, or more years. In other words, students beginning to learn the language can make what appears to be fairly rapid progress, but then slow down once they reach intermediate proficiency. According to the CREDE report, even students who are in all-English instruction do not begin to show higher intermediate levels of English proficiency for at least four years (i.e., grade 3 or later). The idea that children (at least those represented by studies done to date) will quickly become fluent in English if immersed in all-English instruction is contradicted by the research literature, yet some states' language policies (for example, California's and Arizona's) require that students enter mainstream English instruction after a year of school. Certainly individual

exceptions can be found, but fluency within a year of English immersion in school is not the norm.

Why does gaining full proficiency take so much longer than intermediate proficiency? There are probably two reasons. First, the vocabulary and sentence patterns required to be an intermediate speaker of English are simpler than those required for advanced proficiency levels. Second, intermediate speakers can rely on the immediate context of a conversation where gestures, pointing, intonation, and other nonlinguistic cues assist communication. Intermediate proficiency likely means that the student has sufficient command of the language to engage effectively in familiar situations, such as play, daily activities, and normal conversations with friends. Such language situations are highly contextualized, fairly recurrent and familiar, and supported by gestures, intonation, and shared references. They therefore require less precise vocabulary and sentence structures.

Full proficiency likely means that a student has sufficient command of the language to engage effectively in more complex interactions that involve abstract concepts and references to things that are not in the immediate vicinity. In these situations, the vocabulary and sentence structures required for adequate communication will be more challenging. In addition, pointing and gesturing will help much less, if at all. Linguistic demands are, therefore, far greater once a speaker tries to get beyond an intermediate proficiency level. The speaker and listener must know the meaning of the words and understand the sentence structures and other nuances that communicate the intended message. Academic situations (e.g., lectures, discussions, and group work) are often like

this, but so are many conversations about movies, political events, or a complex personal situation. Such language situations tend to be less contextualized by the social and pragmatic circumstances and more focused on abstract ideas and concepts that we are less likely to come across in our everyday affairs.

Students must learn and study many of these concepts, and the *language* needed to talk about them, in school. Academic English—the type of language that is essential for school success—is particularly difficult to master because it is generally not used outside of the classroom and it draws on new vocabulary, more complex sentence structures, and rhetorical forms not typically encountered in nonacademic settings. Knowing conversational English undoubtedly helps in learning academic English, but the latter is clearly a more challenging task that requires more time.

What Is the Best Way to Teach English Language Development?

This is another area about which there is little agreement. In fact, until fairly recently, researchers were divided on the question of whether a second language could even be taught directly, as opposed to being acquired through meaningful interactions with other speakers. However, we now are pretty confident that teaching the language directly helps learners learn the language, but learners also need to be in situations where they can use the language for genuine communication. Several publications have appeared since the CREDE report was completed that support this perspective.² Effective second language instruction provides a combination of a) explicit teaching that helps students directly and efficiently

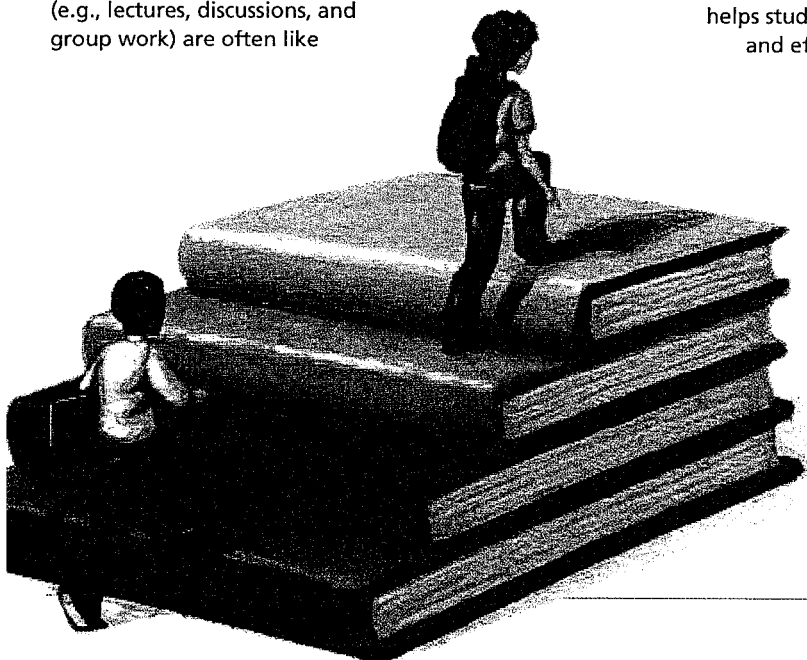
learn features of the second language such as syntax, grammar, vocabulary, pronunciation, and norms of social usage and b) ample opportunities to use the second language in meaningful and motivating situations. We do not know whether there is an “optimal” balance, much less what it might be. But there is every reason to believe that successful second language instruction comprises elements of both. What we need is a new generation of second language research that examines the nature of this balance and addresses whether, and what kind of, instruction can shorten the time required for ELLs to gain native or near-native English proficiency.

A final point. Educators often wonder whether English language development (ELD) should be taught as a separate subject at a distinct time in the day or if it should be “integrated” throughout the day, taught alongside the regular curriculum. A recent study suggests that ELD probably benefits from a separate period.³ Researchers found that when a separate ELD block was used, students scored higher on a standardized measure of English oral language. Teachers spent more time on oral English and were more efficient and focused in their use of time. The ELD block was, by design, targeted at oral English language development, and teachers taught accordingly. In contrast, when there was no ELD block, less time was spent focusing on English per se and more on other language arts activities such as reading. This study was limited to kindergarten, and the effect was small. But if the findings are accurate, the cumulative effect of a separate block of ELD instruction over many years could be substantial. At the moment, however, this is speculation.

ELLs’ language needs are complex, and while they benefit from ELD instruction per se, they also need instruction in the use of English in the content areas (math, history, science, etc.). Teaching both content and language is a challenge for teachers; this is currently also an area of active research.⁴ But whether we isolate and teach explicitly the language and vocabulary of academic subject areas in ELD instruction or integrate the teaching of language within content lessons, we should recognize that doing either or both requires very careful planning and effective instructional practices in order to achieve the desired language and content objectives.

—C.G.

(Endnotes on page 44)



(Continued from page 11)

large number of qualitative studies.* The CREDE panel reviewed research that addressed children's English language development, literacy development, and achievement in the content areas (science, social studies, and mathematics). In contrast, the NLP only looked at influences on literacy development (and aspects of oral language that are closely related to literacy, such as phonological awareness and vocabulary). A final and very important difference between the two reports was the criteria used to determine which studies of bilingual education to include. The NLP used more stringent criteria, resulting in a difference in the two reports' findings regarding the effects of different lengths of time in bilingual education on ELLs' academic achievement. I describe this difference in the "Critical Questions" sidebar (p. 12).

In doing their reviews, both sets of panelists paid particular attention to the quality of the studies and the degree to which reported findings were adequately supported by the research undertaken. The goal of both reviews was to synthesize the research and draw conclusions that would be helpful to educators and that would also identify areas for additional future study. Readers should be aware of the dramatic discrepancy between the research base for English speakers and English learners. For example, eight years ago the National Reading Panel (which excluded studies of language learners) synthesized findings from over 400 experimental studies of instruction in phonological awareness, phonics, vocabulary, reading fluency, and reading comprehension.¹⁶ In contrast, the NLP could identify only 17 experimental studies of instructional procedures, even though the NLP considered more topics and used looser inclusion criteria. The amount of research with ELLs has increased greatly, even in the two years since these reports were published. However, more research on educating ELLs is clearly needed.

It would be impossible to fully summarize the reports here, and educators are encouraged to obtain and study them. But their key conclusions can help us forge a new foundation for improving the education of children from non-English-speaking homes. The findings can be summarized in three major points:

- Teaching students to read in their first language promotes higher levels of reading achievement *in English*;
- What we know about good instruction and curriculum in general holds true for English learners as well; but
- When instructing English learners in English, teachers must modify instruction to take into account students' language limitations.

Let's take a closer look at each point.

* Experimental studies are considered the "gold standard" if one wants to determine the effect of a particular program or type of instruction. Experiments use treatment and comparison groups, as well as other controls designed to ensure that any impacts found can be attributed to the treatment (as opposed to differences, for example, between two groups of students). Correlational studies can establish that there is a relationship between two things (like an instructional method and student achievement), but they cannot be used to demonstrate that one thing caused another. Qualitative studies generally attempt to describe and analyze rather than measure and count. Precise and highly detailed qualitative studies can establish causation (e.g., a part of a lesson that led to student learning), but because the number of subjects in a qualitative study is typically low, they are not good for establishing generalizability.

I. Teaching students to read in their first language promotes higher levels of reading achievement in English.

Whether English learners should be instructed exclusively in English or in their native language and English has been, without question, the single most controversial issue in this area.¹⁷ Dozens of studies and evaluations have been conducted and reported over the past 35 years comparing reading instruction that uses students' first and second languages with second lan-

The NLP was the latest of five meta-analyses that reached the same conclusion: learning to read in the home language promotes reading achievement in the second language.

guage immersion (which in the U.S. would, of course, be English). The NLP conducted a meta-analysis[†] with 17 of these studies—the others did not meet the panel's stringent methodological criteria. The analysis concluded that teaching ELLs to read in their first language and then in their second language, or in their first and second languages simultaneously¹⁸ (at different times during the day), compared with teaching them to read in their second language only, boosts their reading achievement *in the second language*. And the higher-quality, more rigorous studies showed the strongest effects.

For example, five of the most rigorous studies the NLP reviewed involved random assignment of Spanish-speaking students either to English-only instruction or to instruction that was in both English and Spanish. The five studies were varied in terms of students who participated and the use of Spanish for academic instruction. Of these five studies, three were with elementary-age students (including one study with special education ELLs), one was with middle-school students, and one was with high-school students. In one of the elementary studies, students in grades one through three received all their academic instruction (reading, math, writing, science, social studies) in Spanish until they knew enough English to "transition" to Eng-

† A meta-analysis is a statistical technique that allows researchers to combine data from many studies and calculate the average effect of an instructional procedure. It is useful because studies often come to conflicting conclusions. Some find positive effects of a program, others find negative effects of the same type of program, and yet others find no effects. Even among studies that report positive findings, the effects can be small or large. The questions a meta-analysis addresses are these: Taking into account all the relevant studies on a topic, overall, is the effect positive, negative, or zero? And if it is overall positive or negative, what is the magnitude of the effect—large, and therefore meaningful; small, and therefore of little consequence; or something in between? Are there additional factors, e.g., student characteristics, that influence whether effects are large or small?

lish instruction. Students in the control condition received no instruction or support in Spanish. In the study with special education students, second- and third-graders received reading instruction either in English only or in Spanish combined with English as a second language instruction for one year, followed by gradually more instruction in English and less in Spanish over the next two years. The middle-school study included two groups of low-achieving seventh-graders who received equivalent English instruction, but one group received additional instruction in Spanish that focused on reading skills. And the high-school study involved students with low reading achievement who received either English-only instruction or instruction in English and Spanish. All five studies found positive effects of bilingual education on students' reading achievement on various measures of reading in English.

This consistent finding might surprise some readers. But the NLP was the latest of five meta-analyses that reached the same conclusion: learning to read in the home language promotes reading achievement in the second language.¹⁹ Readers should understand how unusual it is to have five meta-analyses on the same issue conducted by five independent researchers or groups of researchers with diverse perspectives. The fact that they all reached essentially the same conclusion is worth noting. No other area in educational research with which I am familiar can claim five independent meta-analyses based on experimental studies—much less five that converge on the same basic finding.

To some people this finding might seem counterintuitive. A few years ago a fair-minded colleague expressed disbelief: "Doesn't it just make sense," she asked, "that the earlier and more intensively children are placed in all-English instruction at school the better their English achievement will eventually be?" That's when it hit me: when the goal is English proficiency, delivering any instruction in the first language probably does *not* make sense to some people. But this is why we do scientific research: common sense does not always turn out to be the truth. If we only relied on common sense, we would still think the sun revolves around a flat earth.

How does learning reading skills in their first language help

students read in their second language? Although several explanations are possible, a likely one is based on what educational psychologists and cognitive scientists call "transfer." Transfer is one of the most venerable and important concepts in education. With respect to English learners, a substantial body of research reviewed by both CREDE and NLP researchers suggests that literacy and other skills and knowledge transfer across languages. That is, if you learn something in one language—such as decoding, comprehension strategies, or a concept such as democ-

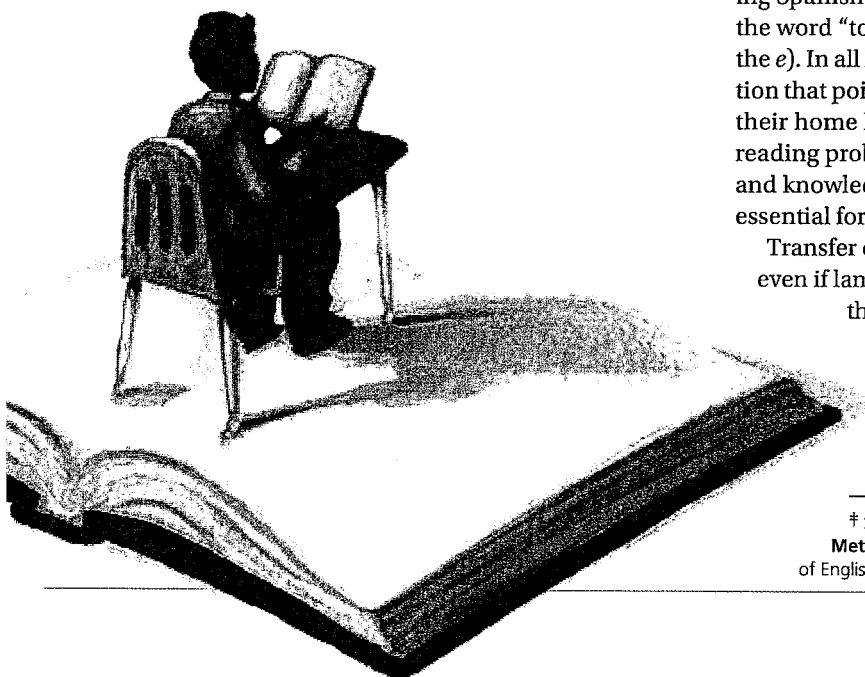
A substantial body of research suggests that literacy and other skills and knowledge transfer across languages. That is, if you learn something in one language, you either already know it in (i.e., transfer it to) another language or can more easily learn it in another language.

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We do not have a very precise understanding of exactly what transfers across languages, but there are numerous candidates. Phonological awareness might transfer—once you know that words are made up of smaller constituent sounds, you can probably apply that understanding to any language. Decoding skills, as well as knowledge of specific letters and sounds, probably transfer also. The letter *m*, for example, represents the same sound in many languages. But while the concept of decoding probably transfers across alphabetic languages, students will need to learn which rules should transfer and which should not. Spanish, for instance, has no final silent *e* that makes a preceding vowel long. Thus, a Spanish speaker applying Spanish orthographic rules to English words would think the word "tone" has two syllables (since he would pronounce the *e*). In all likelihood, English learners are helped by instruction that points out both what does and does not transfer from their home language to English.[‡] Numerous other aspects of reading probably transfer, for example, comprehension skills and knowledge of concepts (background knowledge) that are essential for comprehension.

Transfer of reading skills across languages appears to occur even if languages use different alphabetic systems, although the different alphabets probably diminish the degree of transfer. For example, studies of transfer between English and Spanish find relatively high correlations on measures of word reading, phonological awareness, and spelling. Some studies of English and non-

[‡] See <http://coe.sdsu.edu/people/jmora/MoraModules/MetaLingResearch.htm> for a helpful document identifying elements of English and Spanish spelling that do and do not transfer.



Roman alphabets (e.g., Arabic), in contrast, find much lower correlations. However, comprehension skills appear to transfer readily between languages with different alphabets, such as English and Korean.

Teachers cannot assume that transfer is automatic. Students sometimes do not realize that what they know in their first language (e.g., cognates such as *elefante* and *elephant*, or *ejemplo* and *example*; or spelling and comprehension skills) can be applied in their second. One researcher puts it this way: "Less successful bilingual readers view their two languages as separate and unrelated, and they often see their non-English language backgrounds as detrimental."²⁰ Ideally, teachers should be aware of what students know and can do in their primary language so they can help them apply it to tasks in English.

Let's be clear: the effects of primary language instruction are modest—but they are real. Researchers gauge the effect of a program or an instructional practice in terms of an "effect size" that tells us how much improvement can be expected from using the program or practice. The average effect size of primary language reading instruction over two to three years (the typical length of

time children in the studies were followed) is around .35 to .40; estimates range from about .2 to about .6, depending on how the calculation is done. What this means is that after two to three years of first and second language reading instruction, the average student can expect to score about 12 to 15 percentile points higher than the average student who only receives second language reading instruction. That's not huge, but it's not trivial either. These effects are reliable and, as mentioned previously, have been found with secondary as well as elementary students, and special education as well as general education students. Primary language reading instruction is clearly no panacea, but relatively speaking, it makes a meaningful contribution to reading achievement *in English*. We are less clear, however, on the effects of different lengths of time in bilingual education; that is, do more years of bilingual education produce higher levels of English achievement? (See the "Critical Questions" sidebar, p. 12, for more on this.)

In addition, the meta-analyses found that bilingual education helps ELLs become bilingual and biliterate. The NLP, whose criteria for including studies were very strict, concluded that "chil-

Colorín Colorado

A Research-Based Web Site for ELLs' Teachers and Parents

Remember the warm feeling you had as a child when you reached the end of a favorite story and read "and they lived happily ever after"? That's where the name of this informative Web site comes from, "Y colorin, colorado, este cuento se ha acabado." There's no direct translation from Spanish, but in concept it's similar—and fitting. This site is about ELLs' academic careers having happy endings. Its primary objective is to deliver research-based information, for teachers and parents, on teaching ELLs to read.

Currently, the site contains extensive information in both English and Spanish, but the developers are beginning to add information in other languages. So far, they've created literacy tip sheets for parents in nine additional languages:

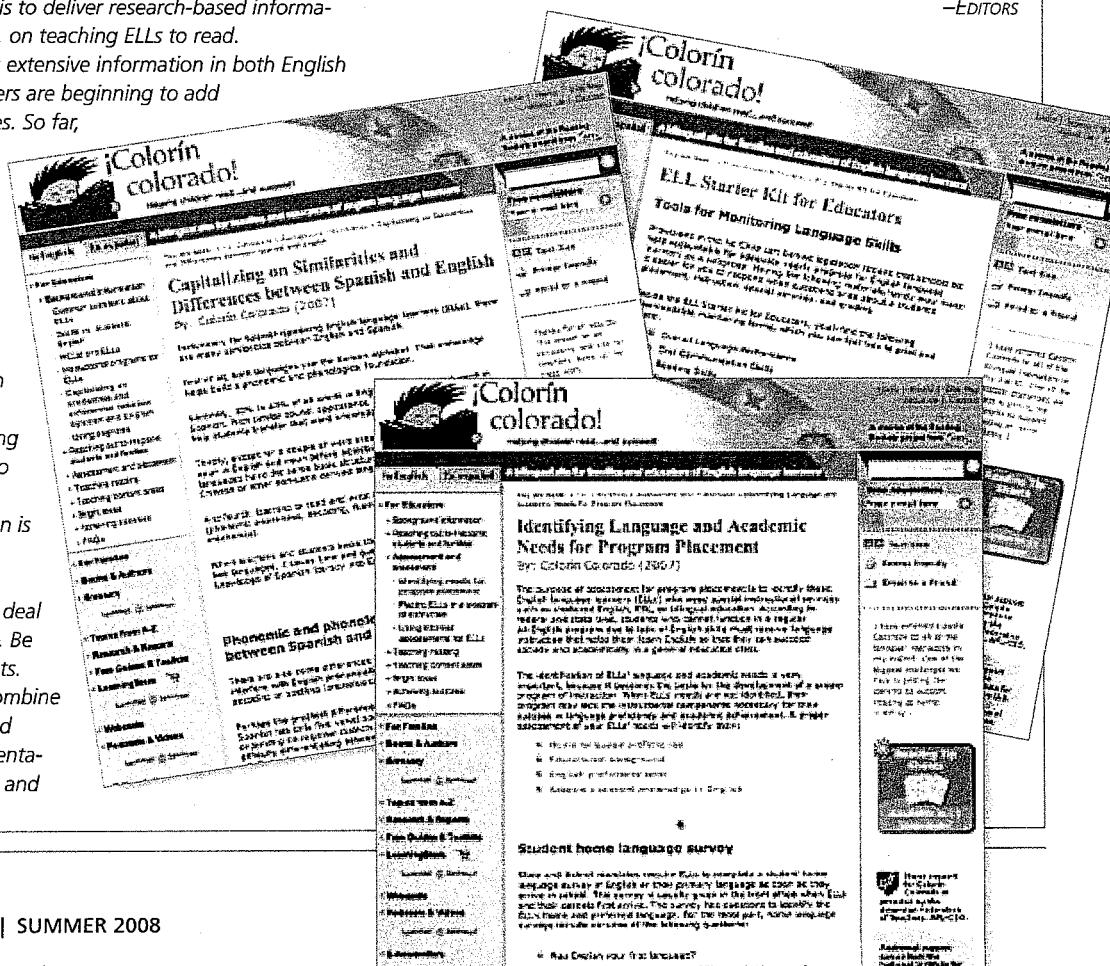
Arabic, Chinese, Haitian Creole, Hmong, Korean, Navajo, Russian, Tagalog, and Vietnamese.

The educators' portion of the site offers everything from basic information on the ELL population to practical teaching and assessment suggestions to summaries of recent research. While much of the information is on early reading, teachers of other subjects and of older students will also find a great deal they can use in the classroom. Be sure to check out the Webcasts. These 45-minute programs combine videos of nationally recognized experts with PowerPoint presentations, recommended reading, and

discussion questions; they offer an in-depth look at important issues such as ELLs with learning disabilities and assessing ELLs. All of these resources are free, and teachers are welcome to share them in professional development sessions.

The three sample pages below offer a glimpse of the site. For the real thing, go to www.ColorinColorado.org.

—EDITORS



dren in the bilingual programs studied ... also developed literacy skills in their native language. Thus, they achieved the advantage of being bilingual and biliterate."²¹ Knowing two languages confers numerous obvious advantages—cultural, intellectual, cognitive,²² vocational, and economic (some studies have found increased earnings for bilingual individuals²³).

In many schools, instruction in the primary language is not feasible, because there is no qualified staff or because students come from numerous language backgrounds or, sadly, because of uninformed policy choices or political decisions. English learners can still be helped to achieve at higher levels. Although the research here is not as solid as the research on primary language instruction in reading, educators have two other important principles, supported by research to varying degrees, on which to base their practice. We turn to them now.

II. What we know about good instruction and curriculum in general holds true for ELLs.

Both the CREDE and NLP reports conclude that ELLs learn in much the same way as non-ELLs (although instructional modifications and enhancements are almost certainly necessary, as discussed in the next section). Good instruction for students in general tends to be good instruction for ELLs in particular. If instructed in the primary language, the application of effective instructional models to English learners is transparent; all that differs is the language of instruction. But even when instructed in English, effective instruction is similar in important respects to effective instruction for non-ELLs.

As a general rule, all students tend to benefit from clear goals and learning objectives; meaningful, challenging, and motivating contexts; a curriculum rich with content; well-designed, clearly structured, and appropriately paced instruction; active engagement and participation; opportunities to practice, apply, and transfer new learning; feedback on correct and incorrect responses; periodic review and practice; frequent assessments to gauge progress, with reteaching as needed; and opportunities to interact with other students in motivating and appropriately structured contexts. Although these instructional variables have not been studied with ELLs to the degree they have been with English speakers, existing studies suggest that what is known about effective instruction in general ought to be the foundation of effective teaching for English learners. There are, of course, individual or group differences: some students might benefit from more or less structure, practice, review, autonomy, challenge, or any other dimension of teaching and learning. This is as likely to be true for English learners as it is for English speakers.

The NLP found that ELLs learning to read in English, just like English speakers learning to read in English, benefit from explicit teaching of the components of literacy, such as phonemic awareness, phonics, vocabulary, comprehension, and writing. The NLP reviewed five studies that as a group showed the benefits of structured, direct instruction for the development of literacy skills among ELLs. A study in England, for example, found that a structured program called Jolly Phonics had a stronger effect on ELLs' phonological awareness and alphabet knowledge, and their application to reading and writing, than did a Big Books approach.²⁴ Other studies also showed similar effects of directly

teaching the sounds that make up words, how letters represent those sounds, and how letters combine to form words. More recent studies²⁵ continue to provide evidence of the benefits of directly teaching phonological and decoding skills to English learners, particularly as part of comprehensive approaches to boost early literacy among children at risk for reading problems.*

Studies of vocabulary instruction also show that ELLs are more likely to learn words when they are directly taught. Just as

ELLs learning to read in English, just like English speakers learning to read in English, benefit from explicit teaching of the components of literacy, such as phonemic awareness, phonics, vocabulary, comprehension, and writing.

with English speakers, ELLs learn more words when the words are embedded in meaningful contexts and students are provided with ample opportunities for their repetition and use, as opposed to looking up dictionary definitions or presenting words in single sentences. For example, a study²⁶ reviewed by the NLP involving fifth-graders showed that explicit vocabulary instruction, using words from texts appropriate for and likely to interest the students, combined with exposure to and use of the words in numerous contexts (reading and hearing stories, discussions, posting target words, and writing words and definitions for homework) led to improvements in word learning and reading comprehension.[†] These are principles of effective vocabulary instruction that have been found to be effective for English speakers.²⁷ Similarly, a preschool study too recent to be included in the NLP or CREDE reviews showed that explaining new vocabulary helped Portuguese-speaking children acquire vocabulary from storybook reading.²⁸ Although children with higher initial English scores learned more words, explaining new words was helpful for all children, regardless of how little English they knew.

Other types of instruction that the NLP review found to be promising with ELLs, especially for increasing their reading comprehension, include cooperative learning (students working interdependently on group instructional tasks and learning goals), encouraging reading in English, discussions to promote comprehension ("instructional conversations"), and mastery learning (which involves precise behavioral objectives permitting students to reach a "mastery" criterion before moving to new learning).[‡]

* For more information, see "Enhanced Proactive Reading" at the Web site below.

† For more information, see "Vocabulary Improvement Program for English Language Learners and Their Classmates, VIP" at the Web site below.

‡ For more information, see "Bilingual Cooperative Integrated Reading and Composition, BCIRC," "Peer-Assisted Learning Strategies (PALS)©," "Instructional Conversations and Literature Logs," and "Reading Mastery" at the Web site below.



For reviews of the research on several ELL programs, see the What Works Clearinghouse Web site at http://ies.ed.gov/ncee/wwc/reports/english_lang/topic/tabfig.asp.

One mastery learning study reviewed by the NLP was particularly informative because the researchers found this approach more effective in promoting Mexican-American students' reading comprehension than an approach that involved teaching to the students' supposed "cultural learning style." (For more on this topic, see p. 21 of the sidebar that begins below.)

The CREDE report reached similar conclusions, which it summarized this way: "The best recommendation to emerge from our review favors instruction that combines interactive and direct approaches."²⁹ "Interactive" refers to instruction with give and take between learners and teacher, where the teacher is actively promoting students' progress by encouraging higher levels of thinking, speaking, and reading at their instructional levels. Examples of interactive teaching include structured discussions ("instructional conversations"), brainstorming, and editing/discussing student or teacher writing. "Direct approaches" emphasize explicit and direct teaching of skills or knowledge, for example, letter-sound associations, spelling patterns, vocabulary words, or mathematical algorithms. Typically, direct instruction uses techniques such as modeling, instructional input, corrective feedback, and guided practice to help students acquire knowledge and skills as efficiently as possible. The CREDE report notes that "direct instruction of specific skills" is important in order to help students gain "mastery of literacy-

related skills that are often embedded in complex literacy or academic tasks."³⁰

In contrast to interactive and direct teaching, the CREDE report found at best mixed evidence supporting what it termed "process approaches." These are approaches where students are exposed to rich literacy experiences and literacy materials, but receive little direct teaching or structured learning. In one study, for example, students were exposed to alternative reading and writing strategies on wall charts, but this was insufficient to ensure that students would use the strategies. In another study, Spanish-speaking ELLs who received structured writing lessons outperformed students who received extended opportunities to do "free writing." The CREDE report concludes that process approaches are "not sufficient to promote acquisition of the specific skills that comprise reading and writing.... [F]ocused and explicit instruction in particular skills and sub-skills is called for if ELLs are to become efficient and effective readers and writers."³¹

III. When instructing English learners in English, teachers must modify instruction to take into account students' language limitations.

Although many aspects of effective instruction apply across the board for learners in general, for English learners, instructional

Instructional Modifications for English Learners

Learning new content in an unfamiliar language is very challenging, so it's important for teachers to make instructional modifications—some of which are aimed at building ELLs' English proficiency and some of which are designed to give them greater access to academic content. Unfortunately, little research exists to indicate what constitutes appropriate or effective instructional modifications. This sidebar contains many possible modifications, but readers should note that they have varying degrees of empirical support.

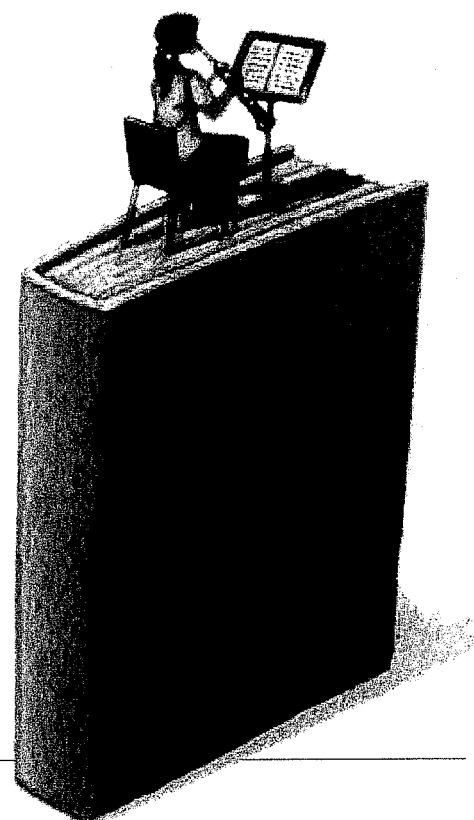
Making Text in English More Comprehensible by Using Texts with Content that Is Familiar to Students

Teachers of all subjects need to help ELLs with reading comprehension. Reading about unfamiliar content in a language that is also unfamiliar places an increased cognitive load on learners. So, an effective approach appears to be to take into account ELLs' different experiential bases. The NLP found that when ELLs read texts with more familiar material, for example, stories with themes and content from the students' cultures, their comprehension improves. (ELLs' proficiency in the

language of the text, however, influences comprehension much more than their familiarity with passage content.) This relationship between content familiarity and text comprehension is not unique to any one group. In general, we all comprehend familiar material more readily—that is why having wide-ranging background knowledge is so important for reading comprehension. But given the formidable language challenges English learners face, teachers should be aware of how they can help students experience additional success by providing familiar reading matter. This can be accomplished either by having students read material with content already familiar to them or by making sure students have sufficient exposure to the content in the text prior to reading the material. For example, teachers can teach a unit in which students read about a topic for several days or weeks. Materials can become progressively more challenging as students become more familiar with the content—a strategy that should ease comprehension and build background knowledge simultaneously.

Building Vocabulary in English

What constitutes effective vocabulary instruction for ELLs and how does it differ



modifications are almost certainly necessary. A very important finding that emerged from the NLP's review was that the impact of instructional practices or interventions tends to be weaker for English learners than for English speakers.

For example, the National Reading Panel identified eight types of reading comprehension strategy instruction that had reliable positive effects on the reading comprehension of English-speaking students, such as comprehension monitoring, question asking, and summarization. The effect sizes of some of these were as high as 1.0, meaning that the average student who received this type of instruction scored 34 percentile points higher than the average student who did not receive this instruction. In contrast, the NLP found the effects of comprehension strategy instruction in English with ELLs so weak that there is a real question as to whether there were any effects at all. There was only one study specifically targeted at improving ELLs' reading comprehension that produced statistically reliable results, and it wasn't even a study of comprehension strategies—it was a study of the effects of simplifying a text. But its implications are a bit ambiguous: although using simplified texts can help ELLs access content that they would not otherwise have, clearly we can't (and wouldn't want to) limit ELLs' reading to simplified texts. To be clear: the NLP did find studies that demonstrated effects of reading instruction on reading comprehension among

ELLs, as discussed previously, e.g., cooperative learning, instructional conversations, and mastery learning. But the effects of teaching reading comprehension *strategies* per se was not nearly as strong for ELLs as it has been shown to be for English speakers. In fact, it might have had no effect at all.

Why might this be so? And what are some special considerations for promoting comprehension with ELLs? There are probably many factors that influence the effects of comprehension instruction on English learners, some possibly having to do with these children's out-of-school experiences. But an undoubtedly important factor is the double challenge ELLs face: learning academic content and skills *while* learning the language in which these skills are taught and practiced. Reading comprehension requires not only the skills of reading—accurate and fluent word recognition, understanding how words form texts that carry meaning, and how to derive meanings from these texts—but it also requires fundamental language proficiency—knowledge of vocabulary, syntax, and conventions of use that are the essence of “knowing” a language. Learners who have the basic reading skills and know the language can concentrate on the academic content. But learners who do not know the language, or do not know it well enough, must devote part of their attention to learning and understanding the lan-

(Continued on page 22)

from effective instruction for English speakers? Fortunately, there are many similarities. ELLs benefit from clear explanations, just as English speakers do. A preschool study (which I mentioned on p. 17 of the main article) found that ELLs acquired more vocabulary when the teacher explained words contained in a storybook read to the children.¹ But this study also found that children who began with lower English scores learned less than children with higher English scores. That is, knowing less English made it harder to learn additional English. What might have helped the children with lower initial English proficiency gain more English vocabulary? Another preschool study found that pictures helped children with low levels of oral English learn story vocabulary (e.g., dentist, mouse, cap).² The *visual representation* of concepts, not just a language-based *explanation*, provided children with additional support in learning the vocabulary words. There is scant research on this topic, but I would expect that songs, rhymes, chants, and additional opportunities to use and repeat words would also help build vocabulary among young English learners.

What about older children? Some clues for vocabulary instruction are offered in a study that examined the effects of a vocabulary program on Spanish-speaking ELL and English-speaking fifth-graders.³

The instructional approach was based on principles of vocabulary instruction found to be effective for children who speak English, for example, explicit teaching of words, using words from texts likely to interest students, and multiple exposures to and uses of the words in numerous contexts. The researchers included additional elements: activities such as charades that actively involved learners in manipulating and analyzing word meanings; writing and spelling the words numerous times; strategic uses of Spanish (e.g., previewing lessons using Spanish texts, providing teachers with translation equivalents of the target words, and using English-Spanish cognates, such as *supermarket* and *supermercado*); and selection of texts and topics on immigration that were expected to resonate with the Mexican and Dominican immigrant students. Overall, the experimental program produced relatively strong effects in terms of students learning the target vocabulary. It produced much smaller, but still significant, effects on reading comprehension. Particularly noteworthy is that the effects of the program were equivalent for ELLs and English-speaking students. Thus, although the researchers acknowledge that they cannot determine which of the extra ELL supports explain the program's impact on these students, their demonstration that with additional

support, a program can have a similar impact on both ELLs and English speakers is very important.

Using the Primary Language for Support

Probably the most obvious instructional modification is to use the primary language for clarification and explanation. This can be done by the teacher, a classroom aide, a peer, or a volunteer in the classroom. It is easy to see how explaining or clarifying concepts in the home language can help ELLs access what is going on in the classroom. But it is also not difficult to imagine downsides. For example, if peers provide the explanations, they might not be accurate; or students might become dependent on a “translator” who provides a crutch such that students do not exert themselves to learn English; or if translations or periodic explanations in the primary language are offered throughout lessons, students can “tune out” during the English part.

Another way to use the primary language but keep the focus on English instruction is to introduce new concepts in the primary language prior to the lesson in English, then afterward review the new content, again in the primary language (sometimes called “preview-review”).⁴ This is different from clarification and explana-

tion since what this does is “frontload” the new learning in the students’ primary language then review it after the lesson. There is no ongoing explanation or translation. When the real lesson is delivered in English, the students are already somewhat familiar with the content, but they have to concentrate to get the message as it is delivered in English. Because of the previewing, the language used in the lesson should be more comprehensible and, in principle at least, the students will walk away knowing more content and more language (vocabulary, key phrases). Then by reviewing lesson content after the lesson, the teacher checks to see whether students accomplished the lesson objective. The NLP reviewed a study that provided some support for the effectiveness of this approach. Prior to reading a book in English, teachers previewed difficult vocabulary in Spanish (the primary language) then afterward reviewed the material in Spanish. This produced better comprehension and recall than either of the two control conditions: reading the book in English or doing a simultaneous Spanish translation while reading. A study not included in the NLP provides another example. Researchers found that teaching reading comprehension strategies in students’ primary language improved reading comprehension when students read in the second language.⁵ (Note that this is quite different than the ineffective comprehension strategy instruction described on p. 19 of the main article, where instruction was delivered in English.)

Teachers can also offer primary language support by focusing on the similarities and differences between English and students’ native language. For example, if using the Roman alphabet, many letters represent the same sounds in English and other languages, but others do not. In addition, as discussed in the main article, languages have cognates, that is words with shared meanings from common etymological roots (*geography* and *geografía*, for instance). Calling students’ attention to these cognates could help extend their vocabularies and improve their comprehension. However, we do not know the effect of cognate instruction per se.⁶ Nonetheless, there are a number of useful sources of Spanish-English cognates that teachers of ELLs can consult.⁷ *The Dictionary of Spanish Cognates Thematically Organized*⁸ offers an exhaustive, book-length list; but see

also the *Dictionary of Spanish False Cognates*⁹ for words that can cause problems, such as (my personal favorite) *embarrassed* and *embarazada*. The latter means pregnant. When put in the masculine form—*embarazado*—it can really light up a classroom of Spanish-speaking adolescents.

Supporting ELLs in English-Only Settings

In addition to accommodations that make use of students’ primary language, a number have been suggested that only make use of English. All of the following appear to be “generic” scaffolds and supports, that is, there is little obviously tailored to ELLs. They might, in fact, be effective strategies for many students—particularly those who need more learning support than is typically provided in teaching/learning situations where verbal exchanges of information predominate.

- Predictable and consistent classroom management routines, aided by diagrams, lists, and easy-to-read schedules on the board or on charts, to which the teacher refers frequently;
- Graphic organizers that make content and the relationships among concepts and different lesson elements visually explicit;
- Additional time and opportunities for practice, either during the school day, after school, or for homework;
- Redundant key information, e.g., visual cues, pictures, and physical gestures about lesson content and classroom procedures;
- Identifying, highlighting, and clarifying difficult words and passages within texts to facilitate comprehension, and more generally greatly emphasizing vocabulary development;
- Helping students consolidate text knowledge by having the teacher, other students, and ELLs themselves summarize and paraphrase;
- Giving students extra practice in reading words, sentences, and stories in order to build automaticity and fluency;
- Providing opportunities for extended interactions with teacher and peers;
- Adjusting instruction (teacher vocabulary, rate of speech, sentence complexity, and expectations for

student language production) according to students’ oral English proficiency; and,

- Targeting both content and English language objectives in every lesson.

This last element is one of the hallmarks of the Sheltered Instruction Observation Protocol, or SIOP, currently one of the most popular instructional models for ELLs in all-English instruction.¹⁰ The SIOP model has made clear and explicit a large number of instructional modifications, such as those listed above, and integrated them into a coherent design for planning, delivering, and assessing instruction. Interested teachers are encouraged to look into this promising approach. To date, however, only one published study has examined the effects of the SIOP on student learning, and its results were very modest.¹¹ The researchers found a slight improvement in the quality of writing produced by middle-school ELLs whose teachers had received the SIOP training, compared with students of similar backgrounds whose teachers had not received the training.

Assessing Knowledge and Language Separately

Because language limitations are likely to obscure what children actually know and can do, it is essential that ELLs be assessed in a way that uncouples language proficiency from content knowledge. A good illustration of why this is important comes from a study in which researchers used various instructional strategies to teach preschool ELLs rhyming skills, an important aspect of phonological awareness.¹² To evaluate the intervention, they assessed rhyming by prompting children with a word and asking them to provide a word that rhymed. If the tester said “lake,” the child would be expected to produce, for example, “cake.” As it turned out, regardless of instructional group, *all* of the children did very poorly on the assessment. The average score on the rhyming test was less than one, meaning that a lot of children simply did not respond. Why? Probably because the task was simply beyond the children’s English language abilities; they were unable to produce a rhyming word, since their vocabularies were so limited. Children were, in essence, given a test that measured productive vocabulary as much as rhyming skill.



The study might have obtained different results if the researchers had presented pairs of words and asked children to distinguish between rhyming and nonrhyming pairs or had children select the rhyming word from several possible choices. While teachers should provide children with language-learning and language-use tasks that challenge them and stretch their language development, they should not expect children to produce language beyond their level of English proficiency.

Educators and researchers have been investigating modifications such as simplifying test items and providing bilingual dictionaries, which could permit ELLs to demonstrate content knowledge in spite of language limitations. The research is hardly definitive, but one review concluded that simplifying test items (e.g., using basic vocabulary and simple syntax), but keeping the content the same, was an effective accommodation that should be used to prevent language limitations from unnecessarily sacrificing ELLs' test performance.¹³

Effects of "Culturally Accommodated Instruction" Are Uncertain

Some educators and researchers have suggested that because different cultural groups behave and interact differently or might have different learning styles, educators should use instructional approaches that are compatible with students' cultural characteristics (i.e., that build upon or complement behavioral and interactional patterns students learn at home). Many readers may be surprised to

learn that the NLP concluded there is little evidence to support the proposition that culturally compatible instruction enhances the actual achievement of English learners. In fact, as mentioned in the main article (p. 18), a study reviewed by the NLP found that a mastery learning/direct instruction approach produced better effects on Mexican-American students' reading comprehension than did an approach tailored to aspects of their sociocultural characteristics.¹⁴ Some studies, most of which are methodologically weak, have indicated that culturally accommodated instruction can promote engagement and higher-level participation during lessons. The strongest and most influential of these studies¹⁵ found that when Hawaiian children were able to speak freely and spontaneously without waiting for teacher permission—an interaction pattern similar to that at home—their achievement-related behaviors (defined as academic engagement, topical and correct responses, number of idea units expressed, and logical inferences) all increased during the reading lesson.

This is a meaningful finding, but it is not the same as establishing a connection between culturally accommodated instruction and measured achievement. The hypothesis is certainly plausible, and future research might establish such a connection. But for now, it appears that developing lessons with solid content and clearly structured instruction is more likely to produce gains in terms of student learning. Teachers should, of course, respect and learn about the cultural backgrounds of their students. And it is indeed possible that tailoring instruction to features of students' home culture (for example, interaction styles) might make them feel more connected to their classrooms; this is what the findings about higher engagement levels suggest. But there is little basis at the moment for the proposition that modifying instruction to suit students' cultural characteristics has an impact on achievement.

Promoting Productive Interaction among ELLs and English Speakers

Another proposition with weak

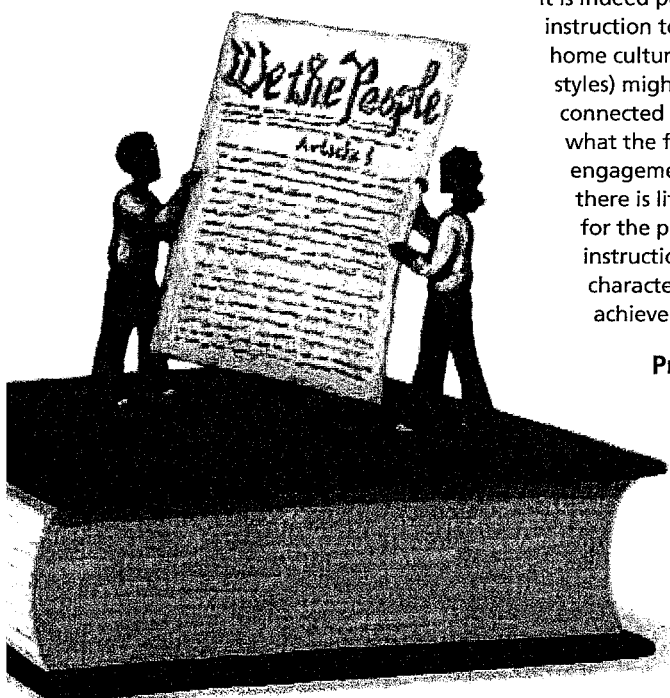
research backing is that grouping ELLs and English speakers during instruction will, in itself, promote ELLs' oral English proficiency. Teachers sometimes assume (not unreasonably) that pairing ELLs and English speakers will provide ELLs with productive language-learning opportunities, but the CREDE synthesis casts doubt on this. One study described the case of an ELL whose teacher relied almost exclusively on classmates to support the student's classroom participation. Because the assignments were far beyond this child's language and academic skills, her peers "were at a loss as to how to assist her."¹⁶ Another study, an examination of cooperative learning in one sixth-grade classroom, found that English-speaking students and ELLs rarely engaged in interactions that we might expect to promote learning. More typically, English speakers cut the interactions short in order to finish the assignment, as did the student who said, "Just write that down. Who cares? Let's finish up."¹⁷ These and other studies reviewed in the CREDE report suggest at least two important points about grouping English speakers with ELLs. First, English speakers must be grouped with ELLs who are not so lacking in English skills that meaningful communication and task engagement become problematic. Second, tasks that students engage in must be carefully designed to be instructionally meaningful and provide suitable opportunities for students to participate at their functional levels. Simply pairing or grouping students together and encouraging them to interact or help each other is not sufficient.

Adding Time

Given that ELLs have more to learn—the regular curriculum that everyone must learn, plus English—it makes sense to consider ways to provide them with extra time for learning. Extended day, after school, extended year, summer school, and extra years to earn a diploma are all possibilities. A recent article in *Education Week* makes a very compelling case for after-school programs that provide ELLs with additional time and supports to help promote English language development and learning academic content.¹⁸ I know of no research that has examined the effects of extra time for English learners, but these are clearly possibilities that educators, policymakers, and researchers should consider.

—C.G.

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guage in which that content is taught. It's an enormous challenge that most ELLs probably have difficulty meeting without additional instructional supports.

In the earliest stages of learning to read, however, when the focus is on sounds, letters, and how they combine to form words that can be read, English learners can make progress in English that is comparable to that of English speakers, provided the instruction is clear, focused, and systematic. In other words, when the language requirements are relatively low—as they are for learning phonological skills (the sounds of the language and how words are made up of smaller constituent sounds), letter-sound combinations, decoding, and word recognition—ELLs are more likely to make adequate progress, as judged by the sort of progress we would expect of English speakers. They still probably require some additional support due to language limitations.

As content gets more challenging and language demands increase, more and more complex vocabulary and syntax are

required, and the need for instructional modifications to make the content more accessible and comprehensible will probably increase accordingly. The NLP concluded that high-quality reading instruction alone will be “insufficient to support equal academic success” for ELLs, and that “simultaneous efforts to increase the scope and sophistication of these students’ oral language proficiency” is also required.³² Our knowledge of how to accelerate this development of oral English proficiency, however, is unfortunately quite limited (see “Critical Questions” sidebar p. 12).

Nonetheless, it is evident that improving oral English proficiency is a must. ELLs’ language limitations begin to impede their progress most noticeably as they move beyond the early stages of reading, and vocabulary and content knowledge become increasingly relevant for continued reading (and general academic) success—usually around third grade. This is why it is critical that teachers work to develop ELLs’ oral English, particularly vocabulary, and their content knowledge from the time they start school, even as they are learning the reading

Two Classroom Views

Since there's no one best way to educate English language learners (ELLs), schools have adopted a wide variety of models. Early exit, late exit, transitional, developmental, sheltered—the sea of programs and terminology is murky at best. To bring some clarity, turn to CREDE's Program Alternatives for Linguistically Diverse Students (<http://crede.berkeley.edu/pdf/epr01.pdf>), which includes descriptions of various approaches and the resources needed to implement them, as well as short case studies of schools.

At the extremes, the options range from sheltered instruction, in which English-only teaching and texts are modified to make them more comprehensible as ELLs learn academic English and content, to dual immersion, in which instruction is in two languages with the goal of bilingualism for all (not just ELLs). We talked to teachers in both types of programs.

Richard Quinones, a second-grade teacher at Oyster Bilingual School in Washington, D.C., co-teaches a class of 26 students with Vanesa Gracia. Richard is a native English speaker and Vanesa is a native Spanish speaker. Oyster uses dual immersion to teach its pre-K through seventh-grade students academic content in Spanish and English. Roughly one-half the student body is comprised of native Spanish speakers, while the other half consists of English speakers.

At the other end of the spectrum, Katie Kurjakovic provides sheltered instruction to small groups of ELLs at P.S. 11, the Kathryn M. Phelan School, in Queens. The students in

this K-6 school speak 20 different languages. In each grade, there is at least one classroom that consists entirely of ELLs and that is taught by a certified English as a second language (ESL) teacher. In addition, the school has three ESL teachers, including Katie, who provide extra support—often in English language development and literacy—to ELLs, both those in the ESL classrooms and those who have been mainstreamed.

—EDITORS

Richard Quinones, Oyster Bilingual School, Washington, D.C.

The whole idea of the Oyster model is that you have two teachers in the classroom—one native Spanish speaker and one native English speaker. The students receive instruction half the time in Spanish and half the time in English.

To do a science unit on plants, for example, my partner and I start off by looking at the standards; we make sure we both have the same understanding of what the child needs to know and be able to do. Then we identify key words from the vocabulary and plan how we are going to include them in the lessons and homework. (On Mondays and Wednesdays I give out homework in English; on Tuesdays and Thursdays my partner gives out homework in Spanish.)

In second grade, students need to know not only the components of a plant, but how those components

work—the purpose of the leaves, the roots, and the stems. We have the kids grow plants, use the vocabulary, and read about plants (so as to integrate what they are learning into the reading block). We keep written logs of the plants’ growth and have students draw illustrations with labels.

They learn about plants in both English and Spanish. If I take the lead in the first week’s lesson, my partner will then touch on that lesson in Spanish while she’s doing reading or writing. But she’s not going to redo the same lesson, and vice versa. When my partner does a lesson in Spanish having to do with animals, I’m not going to teach that lesson again. I’m just going to provide the English words that go along with the Spanish words students learned. I might also do something to reinforce the lesson in reading and writing.

We also talk to our art and music teachers to let them know what we’re doing. Currently, my partner and I are focusing on biographies, and the art teacher is creating books with our students on the biographies they’ve been working on in our classroom.

Despite the extensive collaboration at our school, we do face challenges with dual immersion. As much as my partner and I coordinate and try to plan so that we’re not

“basics.” Vocabulary development is, of course, important for all students, but it is particularly critical for ELLs. There can be little doubt that explicit attention to vocabulary development—everyday words as well as more specialized academic words—needs to be part of English learners’ school programs.

So, how should instruction be modified to help ELLs develop oral English proficiency? And how should it be modified to take into account their language limitations and ensure that they have access to the academic content? Several instructional modifications for ELLs have been proposed. Some have support from research; others seem like common sense but have not yet been validated empirically. These are discussed in the sidebar, “Instructional Modifications for English Learners,” p. 18.

The instructional modifications students need will probably change as children develop English proficiency and in relation to what they are being expected to learn. Students who are beginning English speakers will need a great deal of support, sometimes known as “scaffolding,” for

learning tasks that require knowledge of English. For example, at the very beginning levels, teachers will have to speak slowly and somewhat deliberately, with clear vocabulary and diction, and use pictures, other objects, and movements to illustrate the content being taught. They should also expect students to respond either nonverbally (e.g., pointing or signaling) or in one- or two-word utterances. As they gain in proficiency, students will need fewer modifications—for example, teachers can use more complex vocabulary and sentence structures and expect students to respond with longer utterances; when possible, information can be presented both in pictures and in writing. On the other hand, even fairly advanced ELLs might require modifications when completely new or particularly difficult topics are taught. It might also be that some students in some contexts will require more modifications than others. We are utterly lacking the data necessary to offer such guidelines. But it is likely that ELLs will need some additional instructional support for much of their schooling. Conversational English can be learned to a

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duplicating things, it still seems like we’re trying to teach a year’s worth of curriculum in half the time. The biggest challenge is making sure that we’re giving the support that young readers need.

Katie Kurjakovic, Kathryn M. Phelan School—P.S. 11, Queens

Of the many languages our students speak, the top two are Bengali and Spanish. To meet the needs of our students, we have a two-tiered setup for ESL instruction. In each grade we have at least one all-ELL classroom staffed by a certified ESL teacher who teaches all of the main subjects using extra visuals, hands-on activities, and other supports, and also emphasizes building up knowledge and vocabulary. In addition, we have certified ESL teachers who,

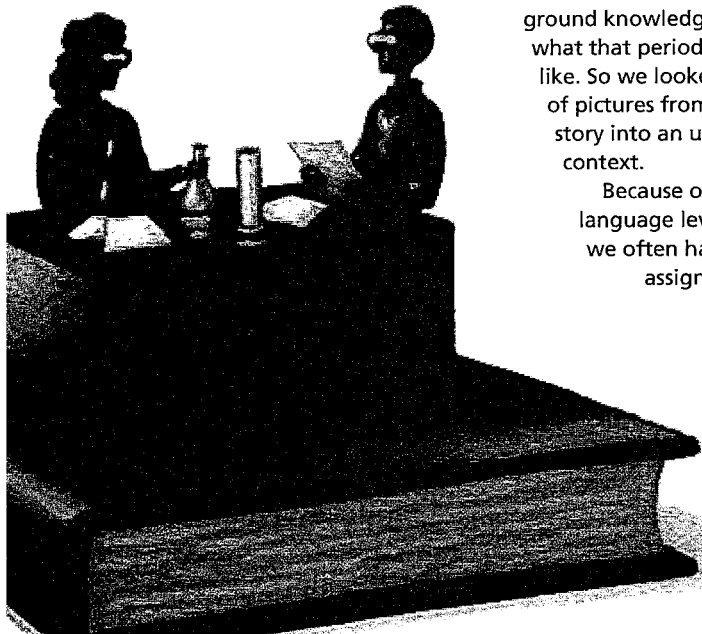
instead of being assigned to a classroom, work with small groups of students. For example, I have a group of fifth- and sixth-graders who have been here for a number of years, but they still can’t pass the state’s ESL test. I pull them out during their reading period to concentrate on decoding, vocabulary, fluency, and comprehension.

One of the great things about our school is we’re very collaborative. If a classroom teacher says to me, “We’ve been doing this unit in social studies and the kids just aren’t getting it. Can you give some support?” I will craft a lesson to give students background knowledge or work on the other skills in the content area. For example, there was a fifth-grade class reading the novel *Sarah Plain and Tall*. The book takes place during pioneer times in the Midwest. There were kids who did not have background knowledge to understand what that period in history looked like. So we looked at maps and a lot of pictures from that time to put the story into an understandable context.

Because of the different language levels among our ELLs, we often have to differentiate assignments while having all of the students work on the

same concept. For example, we recently did a writing activity where the students compared the city and the country, and supported why they wanted to live in either place. Especially for the newcomers, we had to do some preteaching because they knew the word “country” only in the context of a foreign country. They started comparing New York City with Bangladesh or China. To teach the concept, we had students sort pictures of things that are in the city or the country. Once they had that context, they were able to respond to the writing activity, though at varying levels. One fifth-grader enrolled in the school just two weeks before this lesson. There was no way he was going to be able to write a comparison, so we gave him a piece of paper folded in half. He labeled one side city and one country, and he simply drew contrasting pictures. He was dealing with the concept even though he did not have the language yet. Then we started to teach him the names of some of the things he had drawn: building, car, train, etc. The students who are a little more advanced worked with the language pattern: the city has cars, the city has trucks, the city has people. The more fluent students wrote full-fledged essays.

Even with all these supports, the ELLs often need extra time. We offer a lot of after-school classes just for ELLs so they can get even more help than they receive during the day. For instance, one after-school class is English language and vocabulary just for newcomers. □



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Teaching English Language Learners

(Continued from page 23)

reasonably high level in just two to three years, but proficiency in academic English can require six, seven, or more years.³³

* * *

Although there are numerous areas in which there is insufficient research to guide policy and practice, we can lay claim to some things that matter for the education of ELLs. Chief among these is that 1) teaching children to read in their primary language promotes reading achievement in English; 2) in many important respects, what works for learners in general also works for ELLs; and 3) teachers must make instructional modifications when ELLs are taught in English, primarily because of the students' language limitations.

Practically, what do these findings and conclusions mean? In spite of the many gaps in what we know, the following is the sort of instructional framework to which our current state of knowledge points:

- If feasible, children should be taught reading in their primary language. Primary language reading instruction a) develops first language skills, b) promotes reading in English, and c) can be carried out as children are also learning to read, and learning other academic content, in English.
- As needed, students should be helped to transfer what they know in their first language to learning tasks presented in English; teachers should not assume that transfer is automatic.
- Teaching in the first and second languages can be approached similarly. However, adjustments or modifications will be necessary, probably for several years and at least for some students, until they reach sufficient familiarity with academic English to permit them to be successful in mainstream instruction; more complex learning might require more instructional adjustments.
- ELLs need intensive oral English language development (ELD), especially vocabulary and academic English instruction. However, as the sidebar on critical unanswered questions explains (see p. 12), we have much to learn about what type of ELD instruction is most beneficial. Effective ELD provides both explicit teaching of features of English (such as syntax, grammar, vocabulary, pronunciation, and norms of social usage) and ample, meaningful opportunities to use English—but we do not know whether there is an optimal balance between the two (much less what it might be).
- ELLs also need academic content instruction, just as all students do; although ELD is crucial, it must be in addition to—not instead of—instruction designed to promote content knowledge.

Local or state policies, such as in California, Arizona, and Massachusetts, that block use of the primary language and limit instructional modifications for English learners are sim-

ply not based on the best scientific evidence available. Moreover, these policies make educators' jobs more difficult, which is unconscionable under any circumstance, but especially egregious in light of the increased accountability pressures they and their students face. Despite many remaining questions, we have useful starting points for renewed efforts to

Effective English language development provides explicit teaching of features of English (such as syntax, grammar, vocabulary, pronunciation, and norms of social usage) and ample, meaningful opportunities to use English.

improve the achievement of ELLs—the fastest growing segment of the school-age population. Given all the challenges that ELLs (and their teachers) face, policy and practice must be based on the best evidence we have. □

Endnotes

Throughout the article and sidebars, individual studies discussed but not cited are included in either the NLP report or the CREDE report, and often in both.

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Critical Questions Endnotes

(Continued from page 13)

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