In Chapter One of your book you discuss the large achievement gap between native speakers and English learners and state: "In the U.S., current and former English learners with unmet needs are no longer a small minority. As a nation, we cannot afford continuation of current education practices that have produced this large gap, at the risk of under-preparing a large segment of our citizenry for the 21st century." Just how wide is that gap and what are some current trends in bilingual and ESL instruction that can help close it?

When English learners are first tested in English using the standard curricular measure, such as a state test or a norm-referenced test, their performance on the reading subtest (which generally measures reading across the curriculum) is what we use in our research as an indicator of their academic achievement levels in second language. After approximately 2-3 years of schooling in the U.S. when schooled only in English (e.g. minimal ESL pullout), we find that English learners on average score around the 10th -12th percentile on the reading subtest. That means the English learners are scoring about 1.2 national standard deviations below native-English speakers when tested in English. Since the norm group of native English speakers averages at the 50th percentile (grade level performance), that's a huge gap.

The most effective English learner programs we've seen, dual language programs are capable of closing the large gap (1.2 national standard deviations) at the rate of about 0.2 national standard deviations per year. This means that the strongest programs for English learners will require about six years to fully close the gap. Three-year programs only close half of the gap at best.

Thus current strategies that close the gap in the shortest amount of time possible are found in dual language programs, in which English learners are receiving the curriculum at least half of the instructional time through their mother tongue and the other half in English. English learners enrolled in these programs can fully close the gap in second language in six years, making 1 ½ years' progress each year (in comparison to the progress of native English speakers on grade level, who only need to make one year's progress to stay on grade level). Dual language schools are being implemented in North Carolina in a number of school districts, and both English learners and native-English speakers in these dual language classes are outperforming their peers in all grades in which they are tested (3-8). By middle school they are scoring one grade level above their peers in 6-8th grade, because of the intellectual stimulus of schooling through two languages.

For schools not yet implementing dual language programs, ESL taught through academic content is crucial to accelerate the closing of the achievement gap for English learners.

You state that your research shows that dual language programs work best to close the achievement gap. Could you briefly explain why?

Schools implementing dual language programs are committed to transformation of the relationships between groups of students. The cross-cultural context for integrated schooling (e.g. Anglo-American, African-American, and Hispanic-American students acquiring the curriculum through their two languages, Spanish and English) allows for greater creativity in lessons that teach problem-solving across the curriculum from many cross-cultural perspectives. It is a natural context for teaching each other through discovery learning. In the NC dual language schools, there is also a widely diverse socioeconomic mix in each classroom, which leads to students respecting and valuing each other as partners in the learning process, whatever their background. The English-speaking students in dual language classes often perceive the program as an unusual gifted curriculum (the NC schools are so popular that they have to enroll English speakers by lottery), so they are greatly motivated to attend and excel in school. The "prestige" of the program then influences the desire for high achievement among the Spanish speakers, and it's a win-win for all groups.

Also, dual language programs are powerful developers of students' cognitive skills. This important factor enables students to better address the more difficult items on the tests they take, and thus to score higher. They also master the more cognitively demanding aspects of the curriculum. Both of these combine to allow English learners to close the normally unclosed second half of the achievement gap (from 30th to 50th percentiles). In school districts in Texas where students have made it all the way through K-12 dual language classes, the dual language students excel academically, and they have a strong graduation rate.
Interview with Thomas and Collier

Do most existing dual language programs serve students long enough to close the achievement gap?
It takes an average of six years to fully close the gap. This is also true for native-English speakers acquiring the second language, when they are tested on curricular tests in the second language. It is a non-negotiable that dual language programs must continue at least throughout the elementary school years (K-5, and if there is a preschool, then PK-5). Many dual language programs continue into the middle school years too. Transitional bilingual education (TBE) is a very different type of bilingual program, and in states that have implemented this model, students often receive bilingual schooling for only 2-4 years, not enough to fully close the achievement gap in English. A number of states that used to implement mainly TBE are now expanding the dual language model to many schools (e.g. Texas, New Mexico, Illinois, New York), after the longitudinal research has clearly shown the benefits of schooling students through two languages for six or more years.

ESL teachers often admonish their students to speak more English at home. Why is this not always a good idea?
Home is the most important context where cognitive development occurs. When children continue to use the language(s) that the parents know best, from birth to at least age 12, they are receiving nonstop cognitive development. Parents are a wonderful source for the stimulation of thinking skills, when they talk with their children, such as asking questions, making decisions, discussing daily activities, cooking, shopping, telling stories, sharing family heritage, and so on. When parents use the language(s) in which they are cognitively mature (because they have used their home language(s) throughout their growing up and adult years and cognitive development is not directly connected to schooling, but instead to life experiences), then they are presenting an adult cognitive model to the child and nonstop cognitive development takes place. When parents speak to their children in English and English is not the language in which they are cognitively mature, their children's cognitive development is slowed down.

Research shows that children whose first language use is stopped or slowed down before age 12 may experience cognitive slowdown; whereas those whose first language is continuously developed through at least age 12 have cognitive advantages. Furthermore, proficient bilinguals (who develop written as well as oral proficiency in both languages) outscore monolinguals on many types of measures—especially in measures of creativity and problem-solving.

What are some ways to support students' primary languages in schools, absent a full-fledged dual language program?
Academic content courses in L1 (taught by foreign language faculty at secondary level), hiring bilingual school staff, using L1 volunteer tutors (including parents, peers, and cross-age tutors), providing books and other resources in L1 in the library and all classrooms, preparing units in lessons that incorporate other languages in a meaningful way (e.g. bilingual storytellers, L1 pen pals across classes or schools through email, journal writing in L1, environmental print in L1 for young readers, show and tell in L1, learning centers in L1), building partnerships with parents to continue L1 cognitive and academic development at home, using the school building for after-school or weekend school taught in L1, encouraging students to contribute articles in L1 to student publications, allowing social use of L1 outside of classes, encouraging extracurricular activities and school celebrations in L1, sending newsletters and school information to parents in L1, providing family math and literacy programs in evenings and weekends in L1.

President Obama has urged Congress to send him a new education law by fall. What changes would you recommend be included in the 2012 No Child Left Behind law?
Since the Obama administration supports the idea that a world-class education means acquiring a second language, it makes good sense for federal stimulus funds to be provided for two-way dual language schools (programs that integrate native-English speakers with another language group so that they acquire the curriculum through the students' two languages). Towards the end of the Clinton administration, funding was provided for developing two-way dual language programs, so this funding should be restored and increased dramatically. This is the solution to teaching foreign languages to native-English speakers. Introducing students to foreign language at middle school and high school level is too little and too late, since it is only taught as a subject at that level. Acquiring a second language naturally through the curriculum is an ideal way to develop deep proficiency in the language. Since English learners also need to close their achievement gap, these programs are a win-win for both groups.

The other major change that needs to be made in the federal funding is to lessen the punitive aspects of the NCLB legislation, and allow schools to truly meet students' needs by encouraging discovery learning and creative teaching. And when analyzing test data, rather than emphasizing comparing last year's fourth graders to this year's fourth graders (completely different groups with different needs), they should focus analyses on longitudinal research, following the same students across time. Progress should be based on where each student started and how much progress that student has made, year by year.

Tests should be improved so that they become much more than minimum-competency measures of low-level skills (the typical state test). This feature of NCLB has encouraged uninspired, scripted, "teacher-proof," and uninteresting instruction, when we need to engage students at higher levels of cognitive demand in the classroom to help students with much-needed cognitive development. This is especially true of English learners, who must both develop cognitively as much as native English speakers do and master the curriculum in a second language (English), a demanding feat.
In summary, dual language programs are an ideal educational environment for attaining important national education goals, and the federal government should recognize this and provide necessary financial support for the state and local school districts to adopt dual language programs as an across-the-board reform of U.S. education.