

English Learners in North Carolina, 2010

A Report by Wayne P. Thomas, Virginia P. Collier and Karyn Collier

Executive Summary Prepared for the North Carolina Department of Public Instruction

Background	Like other states, North Carolina has experienced a tremendous increase in students whose first language is not English in recent years. Graduates of English-as-a-Second-Language (ESL) programs still exhibit substantial achievement gaps compared to students whose home language is English. As a result, NCDPI has contracted with Wayne P. Thomas and Virginia P. Collier of George Mason University, nationally recognized for their studies of English language learners, to research the effectiveness of dual language programs in addressing these gaps. This report represents the second year cross-sectional results of a longitudinal study to evaluate education programs for English learners in North Carolina Public Schools.
Dual Language Education Defined	The programs studied in this report are two-way dual language programs: programs in which English Language Learners and native-English speakers are educated in the classroom together in both English and another language. The curriculum (<i>North Carolina Standard Course of Study</i>) is presented in English part of the time and a second language at least half the time (Spanish, Chinese, French, German, or Japanese). All state-level tests are administered in English.
Data Sample	<p>The data sample analyzed consists of all available 2008-2009 (SY 2009) information on students in the school districts operating at least one dual language program for at least four years:</p> <ul style="list-style-type: none"> (1) Chapel Hill-Carrboro City: Carrboro Elementary (PK-5), Glenwood Elementary (K-5), and McDougle Middle School (6-8) (2) Charlotte-Mecklenburg: Collinswood Language Academy (K-5), Smith Language Academy (K-8), and West Mecklenburg High School (9-12) (3) Chatham County: Siler City Elementary (K-4) (4) Durham County: Southwest Elementary (PK-5) (5) Greene County: Snow Hill Primary (K-2), West Greene Elementary (3-5) (6) Winston Salem/Forsyth County: Ashley Elementary (K-5) <p>Charlotte-Mecklenburg schools have whole school dual language programs. The other county programs include at least one dual language class per grade. Most programs are Spanish-English and have close to an equal number of non-English language and native-English speakers at each grade level.</p> <p>Students who attended school at least 90 days and took an EOG test were included in the study. Both dual language and non-dual language students (in schools with dual language and schools without) are included in the sample for comparison purposes.</p>
Analysis	<p>Students are divided into three mutually exclusive groups (Thomas-Collier groups) with subcategories for analysis:</p> <ul style="list-style-type: none"> (1) English learners <ul style="list-style-type: none"> a. Current LEPs (N=9,834) b. Former LEPs (N=2,033) (2) Language minority students who are not LEP (N=6,635) (3) Non-language minority native-English speakers <ul style="list-style-type: none"> a. Whites (N=33,095) b. African-Americans (N=32,155) c. Other (N=3,943)

English Learners in North Carolina, 2010

A Report by Wayne P. Thomas, Virginia P. Collier and Karyn Collier

Executive Summary Prepared for the North Carolina Department of Public Instruction

	<p>Mean Reading and Math scores are analyzed separately by grade. Subgroup analyses include Thomas-Collier groups, students of low-socioeconomic status and special education students (students with exceptionalities). Statistical significance (determined using confidence intervals) and practical significance (a difference between group scores larger than .25 of the standard deviation of combined groups and group Ns of at least 25), as well as effect sizes (used to avoid problems with statistical significance given the very large Ns and smaller Ns in the study) are reported. Multiple Linear Regression analyses are presented as an introductory beginning to the inferential analyses to come in the next stages of the study.</p>
<p>Significant Findings</p>	<p>Reading and Math scores in the six-district study sample are approximately the same as statewide figures for each grade; therefore, the conclusions may be generalized to the state. Findings in favor of dual language are both statistically and practically significant.</p> <ul style="list-style-type: none"> • Overall, Reading and Math scores of students in two-way dual language education are higher for <u>all</u> students regardless of race/ethnicity, socioeconomic, LEP or special education status. In most cases, by middle school, two-way dual language students, regardless of subgroup, are scoring as high in Reading and Math achievement as non-dual language students at least a grade ahead of them. • Both current LEPs and African-American native-English speakers show very large achievement gaps when compared to White native-English speakers, regardless of subgroup. Achievement gaps for these groups increase among students of low-socioeconomic and special education status. However, when these groups participate in dual language programs, their achievement gaps are smaller than the gaps of the same groups who are not in dual language classes. • Overall, low-socioeconomic status (SES) students score much lower in Reading and Math than students who are not low-SES. Most African-American students and current LEP students are low-SES. This may be a driving factor in differences in Reading and Math achievement for these student groups. • Students with exceptionalities (special education students) score significantly lower in Reading and Math than students without exceptionalities. There is tentative evidence that special education students in two-way dual language classes who took the End-of-Grade tests outscore special education students not in dual language classes. There is no evidence that special education students experienced lower-than-expected achievement by participating in two-way dual language classes. • Primary “explainers” of low Reading scores in the Regression analyses are being an English learner/LEP, having low socioeconomic status, being an African-American native-English speaker, or being a student with exceptionality. Additionally, students with fewer days of attendance score lower in Reading than students with more days of attendance. <p>Students in dual language classes score significantly higher in Reading compared to students not in dual language classes and dual language students have a higher school attendance rate than non-dual language students.</p>

English Learners in North Carolina, 2010
A Report by Wayne P. Thomas, Virginia P. Collier and Karyn Collier

Executive Summary Prepared for the North Carolina Department of Public Instruction

Researchers' Conclusions	<p>Findings suggest that there are qualities to North Carolina's two-way dual language programs that confer greater educational gains in Reading and Math compared to non-dual language education. Two-way dual language education may be an effective way to improve the Reading and Math scores of <u>all</u> North Carolina students.</p> <p>Out of the total population of students, there are higher percentages of Hispanics and Whites participating in North Carolina's two-way dual language programs compared to African-Americans. Given the large number of African-Americans in North Carolina's student population, the lower Reading and Math scores of African-American students overall and the advantage two-way dual language education provides African-American students, it may be of benefit to increase African-American enrollment in dual language programs.</p> <p>Low-socioeconomic status may be a driving factor in lower achievement among current LEPs and African American students. Given that low-socioeconomic status students in dual language programs score significantly higher in Reading and Math than low-SES students not in dual language programs, two-way dual language may prove to be a model that can help address the achievement gap for many LEP and African-American students.</p> <p>Exceptional students deemed ready to take the EOG tests may benefit from placement in dual language classrooms, possibly because of the extra cognitive stimulation afforded by mastering the curriculum in more than one language and by learning a second language in addition to English. This possibility deserves further investigation in future analyses with larger samples of students with exceptionalities in dual language programs given the achievement gaps for these students.</p> <p>The exploratory finding that dual language students have more days of attendance than non-dual language students indicates the possibility that dual language classes may cause students to be more interested and motivated to attend school. As Reading scores are higher for students with more days of attendance, this is an additional potential benefit of dual language instruction that deserves further investigation and confirmation in upcoming analyses.</p> <p>Dual language classes appear to increase the Reading and Math achievement of <u>all</u> students regardless of subgroup, and appear to be a substantially effective means of addressing North Carolina's large achievement gaps for current limited-English-proficient students, non-language minority native-English speaking African-American students, students of low-socioeconomic status and possibly special education students. Longitudinal study of student cohorts over multiple school years, beginning with the addition of 2010 data, will expand on these findings in the 2011 report.</p>
---------------------------------	---