

The Evolution of Bilingual Education
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This session provides an overview of our research findings to date from our studies in U.S. public schools in 23 school districts in 15 states from 1985 to the present, including our recently completed National Study of School Effectiveness for Language Minority Students= Long-term Academic Achievement. This study was federally funded by the Office of Educational Research and Improvement of the U.S. Department of Education, 1996-2002, as one of the studies of the Center for Research on Education, Diversity and Excellence (CREDE). As principal investigators, we establish a collaborative research agreement with each school district that chooses to participate, to follow every language minority student who enters the school district for every year of his/her attendance in that school district, by each program type attended including the mainstream, and by cohorts of similar student background (e.g. SES, L1 & L2 proficiency upon entry, prior schooling). Measures of student achievement are those administered by the school district, including standardized test scores, and we report generalizations across school districts based on group performance on standardized measures, in normal curve equivalents (NCEs=equal-interval percentiles). The school districts participating in the study are promised anonymity until they choose to self-identify. Our school districts use the results of our data analyses for more effective decision making that is data-driven. We have collected data from urban, suburban, and rural school districts in all regions of the U.S. The total number of language minority student records collected to date is over 2 million, from school years 1982-2003, with over 100 primary languages represented in the student samples, Spanish speakers being the largest language group. Our program effectiveness findings to date continue to confirm our findings from previous studies, and we have added some new program types analyzed in the 1996-2002 research. (See website <http://www.ncela.gwu.edu/pubs/resource/effectiveness/> [for 1991-1996 study] and website www.crede.ucsc.edu/research/llaa/1.1_final.html [for 1996-2002 study]). Among our research findings are:

Focusing mainly on 11th grade results from nationally standardized tests, on the Total Reading subtest (measuring academic problem solving across the curriculum=math, science, social studies, literature), for students who entered the U.S. school district with no proficiency in English in Grades K-1:

- \$ English language learners (ELLs) whose parents refuse bilingual/ESL services show large decreases in reading and math achievement by Grade 5. Cross-sectional findings indicate that the largest number of dropouts come from this group, and those remaining finish school near the 12th percentile (25th NCE) on the standardized reading test (from our 1996-2002 analyses).
- \$ Proposition 227 in California (one year immersion in English classes, followed by immersion in the mainstream) has resulted in EVEN LESS gap closure than ESL pullout, the next lowest achieving program. There is no significant evidence of achievement gap closure by ELLs, especially in the secondary grades (from our analyses of CA Dept. of Education statewide test scores, 1998-2001).
- \$ Typical end-of-school achievement for graduates of ESL pullout (2-3 years) is 11th percentile (24th NCE) B highest is 18th percentile (31st NCE); and its dropout rate is highest among the programs (from our 1991-1996 analyses).
- \$ Graduates of ESL content (or sheltered instruction) for 2-3 years reach the 22nd percentile (34th NCE) by the end of their high school years B highest is 32nd percentile (40th NCE) (from our 1991-1996 and 1996-2002 analyses).
- \$ Transitional bilingual education (TBE) in a segregated classroom 2-3 yrs., reaches the 24th percentile (35th NCE) (from our 1991-1996 analyses).

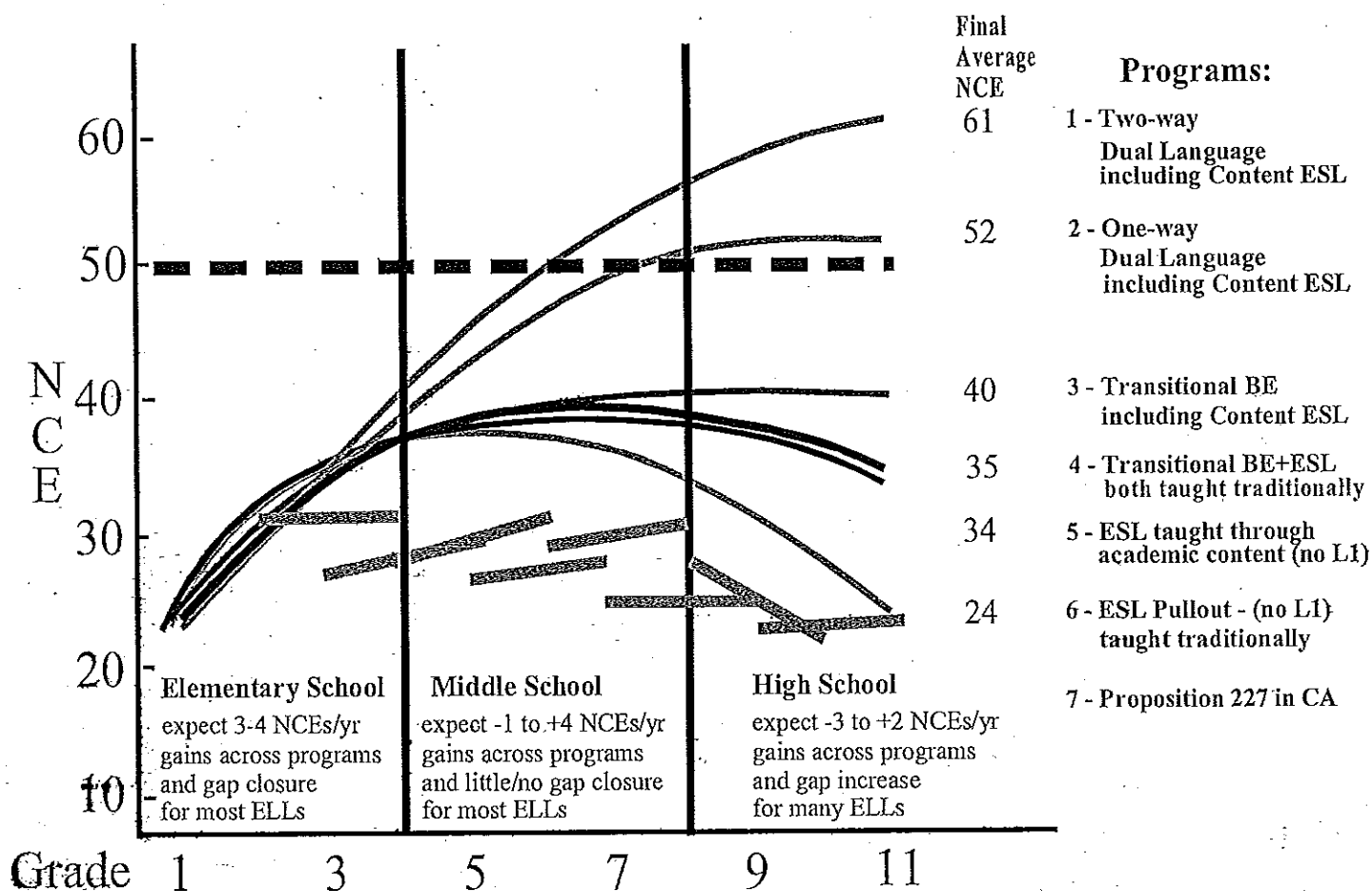
- \$ TBE for 3-4 yrs., integrated with native-English speakers for half-day instruction in English, reaches the 32nd percentile (40th NCE) (from our 1991-1996 analyses).
- \$ 90:10 TBE (Grades PK-2, 90 percent of instruction in minority language, gradually increasing majority language (English) instruction until by Grade 5, all instruction is in English for the remainder of schooling) reaches the 45th percentile (47th NCE) (from our 1996-2002 analyses).
- \$ Enrichment 90:10 and 50:50 one-way and two-way dual language education programs (or developmental bilingual, bilingual immersion) are the only programs we have found to date that assist students to fully reach the 50th percentile in both L1 and L2 in all subjects and to maintain that level of high achievement, or reach even higher levels (highest we've seen is 83rd percentile/70th NCE), through the end of schooling. The fewest dropouts come from these programs. (One-way - one language group receiving schooling through two languages; Two-way - two language groups receiving integrated schooling through two languages.) (50:50 - half of the instructional year is taught in each language; 90:10 - early grades 90 percent instruction in minority language, gradually moving towards 50:50 by Grade 5.) (from our 1991-1996 and 1996-2002 analyses)
- \$ When English language learners initially attend segregated, remedial programs, these students do not close the achievement gap after reclassification and placement in the English mainstream. Instead, they maintain or widen the gap in later years. Therefore, their average achievement NCE at reclassification should be as high as possible, since this is likely to be the highest achievement level that they reach during their school years. Ideally, instructional gains are best accomplished in an enrichment (not a remedial) program (from our 1991-1996 and 1996-2002 analyses).
- \$ Socioeconomic status influences only 5% of achievement with strong programs, but as much as 18% for weaker programs. Therefore, effective and sustained programs can almost completely overcome the negative effects of low socioeconomic status (from our 1996-2002 analyses).
- \$ The strongest predictor of L2 student achievement is amount of formal L1 schooling. The more L1 grade-level schooling, the higher L2 achievement (from our 1991-1996 and 1996-2002 analyses).
- \$ Bilingually schooled students outperform comparable monolingually schooled students in academic achievement in all subjects, after 4-7 years of dual language schooling.
- \$ Bilingual/ESL programs must be effective (at least 3-4 NCE gains per year/more than mainstream students are gaining), well implemented, not segregated, and sustained long enough (5-6 years) for the typical 25 NCE achievement gap between ELLs and native-English speakers to be closed. Even the most effective programs can only close half of the achievement gap in 2-3 years, the typical length of remedial ELL programs (from our 1991-1996 and 1996-2002 analyses).

An enrichment bilingual/ESL program must meet students' developmental needs: linguistic (L1-L2), academic, cognitive, emotional, social, physical. Schools need to create a natural learning environment in school, with lots of natural, rich oral and written language used by students and teachers, with L1 and L2 used in separate instructional contexts with no translation and no repeated lessons; meaningful, >real world= problem-solving; all students working together; media-rich learning (video, computers, print); challenging thematic units that get and hold students' interest; and using students' bilingual-bicultural knowledge to bridge to new knowledge across the curriculum (from our 1991-1996 and 1996-2002 analyses). Also see *Educational Leadership*, April, 1999 & Oct. 2003, and *NABE Journal of Research and Practice*, Vol. 2, www.njrp.tamu.edu/2004.htm. See also www.thomasandcollier.com website and click on Research Links to download our publications on the Internet.

ENGLISH LEARNERS' LONG-TERM K-12 ACHIEVEMENT IN NORMAL CURVE EQUIVALENTS (NCEs) ON STANDARDIZED TESTS IN ENGLISH READING COMPARED ACROSS SEVEN PROGRAM MODELS

(Results aggregated from longitudinal studies of well-implemented, mature programs in five school districts and in California (1998-2000))

- Program 1: Two-way Dual Language Education (DLE), including Content ESL
 Program 2: One-way DLE, including ESL taught through academic content
 Program 3: Transitional BE, including ESL taught through academic content
 Program 4: Transitional BE, including ESL, both taught traditionally
 Program 5: ESL taught through academic content using current approaches with no L1 use
 Program 6: ESL pullout - taught traditionally
 Program 7: Proposition 227 in California (successive 2-year quasi-longitudinal cohorts)



Summary of Characteristics and Effectiveness Of Common U.S. Programs for English Learners

	REMEDIAL					ENRICHMENT	
	As in law	As well implemented				As well implemented	
While in these programs students receive:	Proposition 227 in California	ESL Pullout	ESL Taught Through Content	TBE* with Traditional Teaching	TBE* with Current Teaching	One-way DL/DBE** one group taught in two languages	Two-way DL/DBE** two groups taught in their two languages
Cognitive Emphasis	None	Little	Some	Some	Moderate	Strong	Strong
Academic Emphasis (in all school subjects)	None	None	Yes	Yes	Yes	Yes	Yes
Linguistic Emphasis L1=primary language, L2=English	Only Social English (only in L2)	Only Social English (only in L2)	Academic English (only in L2)	Develops Partial L1 + L2 Academic Proficiency	Develops Partial L1 + L2 Academic Proficiency	Develops Full L1 + L2 Academic Proficiency	Develops Full L1 + L2 Academic Proficiency
Sociocultural Emphasis C1=1st culture C2=2nd culture	None	Little	Some	Some	Moderate	Strong C1+C2	Strong C1+C2
Program Length	Transitory 1 year	Short-term 1-2 years	Short-term 2-3 years	Short-term 2-3 years	Intermediate 3-4 years	Sustained 6-12 years	Sustained 6-12 years
Native Language Academic Support	None	None	None	Some	Moderate	Strong	Strong
Exposure to English Speakers	No -- self-contained class	Yes -- in mainstream class	Yes -- half day after first year	No -- self-contained class	Yes Half-day	Yes Half-day	Yes All day
Extra Instructional Cost	High (extra teachers needed)	High (extra teachers needed)	High (extra teachers needed)	Small-to-moderate (special curriculum)	Small-to-moderate (special curriculum)	Least expensive: Standard mainstream curriculum	Least expensive: Standard mainstream curriculum
Percent of Achievement Gap With Native English Speakers Closed by End of Schooling (based on data-analytic research)	Unresearched longitudinally but no cross-sectional evidence of gap closure by ELLs since beginning in 1998	None final average scores at 11 th national percentile - max is 18 th	Less than 50% final average scores at 22 nd national percentile - max is 32 nd	Less than 50% final average scores at 24 th national percentile	More than 50% final average scores at 32 nd national percentile (but 90-10 TBE at 45 th percentile)	100% of gap fully closed by end of school -- average scores at or above 50 th national percentile	100% of gap fully closed by end of school -- average scores above 50 th national percentile

* TBE stands for *transitional bilingual education* ** DL/DBE stands for *dual language/developmental bilingual education*

Closing the Achievement Gap: Dual Language: The Best Case

Native English Speakers	English Language Learners
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Year Of School	Growth In Achievement	Average Test Score (NCEs)	Growth In Achievement	Average Test Score (NCEs)
Start		50		20
End of Grade 1	1 year of growth	50	1 year of growth + 5 NCEs	25
End of Grade 2	1 year of growth	50	1 year of growth + 5 NCEs	30
End of Grade 3	1 year of growth	50	1 year of growth + 5 NCEs	35
End of Grade 4	1 year of growth	50	1 year of growth + 5 NCEs	40
End of Grade 5	1 year of growth	50	1 year of growth + 5 NCEs	45
End of Grade 6	1 year of growth	50	1 year of growth + 5 NCEs	50
Totals	6 years of growth	50	6 years of growth + 30 NCEs	50

Normal Curve Equivalents (NCEs) are equal-sized national percentiles.

Criteria for Effective Two-Way and One-Way Dual Language Education

(Adapted from research by Kathryn Lindholm-Leary)

- **A minimum of six years of bilingual instruction**
- **Focus on the core academic curriculum rather than a watered-down version**
- **Quality language arts instruction in both languages**
- **Separation of the two languages for instruction**
- **Use of the non-English language for at least 50 percent of the instructional time and as much as 90 percent in the early grades**
- **An additive bilingual environment that has full support of school administrators, teachers, and parents**
- **For two-way classes, a balanced ratio of students who speak each language (for example, 50:50 or 60:40 or 70:30)**
- **Promotion of positive interdependence among peers and between teachers and students**
- **High-quality instructional personnel**
- **Active parent-school partnerships**

From Remediation to Enrichment: A Thomas & Collier Proposal to U.S. Schools

START with existing Transitional Bilingual Education (TBE) Programs (that close only half of the ELL achievement gap at best) **AND START** with existing teachers and current English language learners.

- *Change the program intent* from remediation to curricular enrichment and accelerated instruction for full gap closure.
- *Change the program duration* from 3-4 years to 6-8 years to allow for full gap closure in English and the students' first language (L1). When ready, expand the program to PK-12 and invite **all students** in the school district to participate.
- *Change the first major program goal* to full proficiency in two languages (English plus L1) for all students, rather than only transitioning to English.
- *Change the second major program goal* to full mastery of the curriculum in two languages, rather than partial mastery at the time of re-classification into the mainstream at about the 35th percentile.

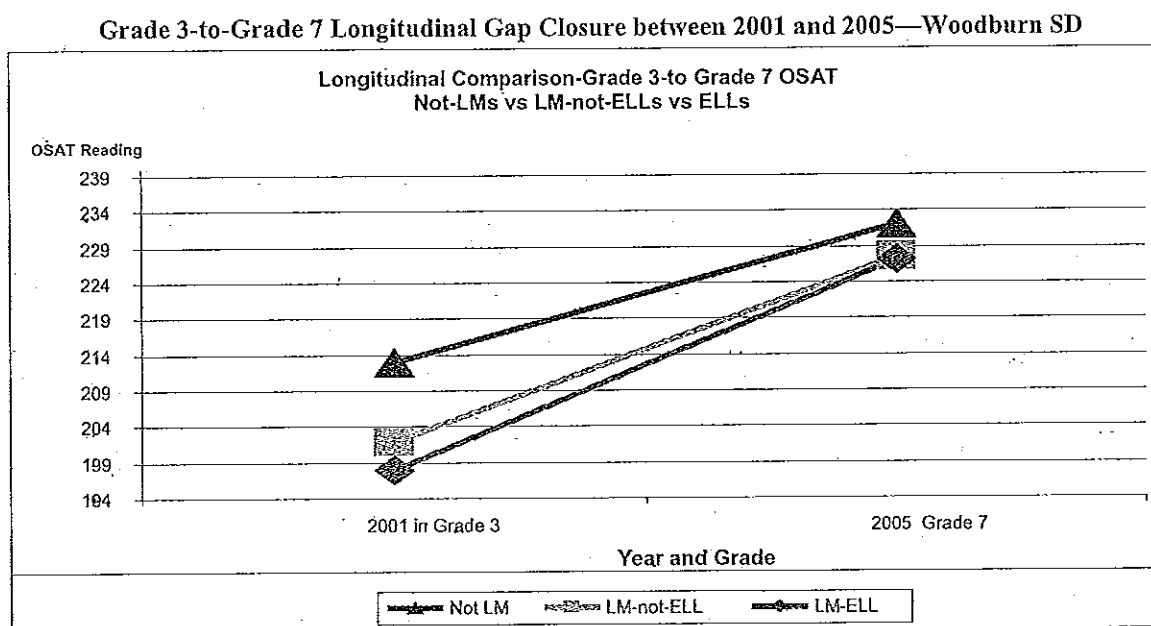
RESULT: A One-way Dual Language Program in the Mainstream that

- closes all of the achievement gap (including the hard-to-close second half),
- leads to full English proficiency,
- produces student graduates who are bilingual/biliterate and prepared for the 21st century.

And when the school community is ready, add interested native-English speakers to create a Two-way Dual Language program open to all students in the school district.

Woodburn (OR) School District: Accepting the Thomas & Collier Proposal

Since 2001, Woodburn has been moving toward a one-way dual language program district-wide, after beginning with Transitional Bilingual Education and ESL. Woodburn's students are approximately 70% language-minority (including ELLs) and low-SES. The ELL passing rate for the OSAT (state achievement test) was 42% in 2001 (passing score 201) and 49% for the same students in 2005 (passing score 215). During the same period, ELLs closed their achievement gap with native-English speakers from 15 points to only a 5 point difference. Woodburn SD is now working to improve the implementation quality of its program, and is focusing on the specifics for converting from TBE to a one-way DL program in each school.



Upgrading Transitional Bilingual Education (TBE) for English Learners to Dual Language Education (DLE) Programs for All Students

Factor	TBE	DLE
Program Intent	Monolingualism in English for ELLs	Bilingualism for all
Program Nature	Subtractive, Remedial, Separatist & isolating	Additive, Enrichment-oriented, Integrated
Students Participating	ELLs only	ELLs, LMs, Native-English speakers
Program Length	Early-exit: usually 2-3 yrs. Late-exit: 5-6 years	Elementary school years and beyond (at least K-8)
Language Status in Classroom	High status for English; Less emphasis on L1 or on ELL students' culture	High status for English and L1; Emphasis on L1 and L2 cultures
Prism Model: Academic Dimension	Minimal academic development in L1 leads to below-grade-level in L2	Grade-level achievement in all subjects in L1 & L2
Prism Model: Cognitive Dimension	L1 cognitive development stopped before completed at age 12	Full L1 & L2 cognitive development
Prism Model: Linguistic Dimension	Minimal L1 academic development leads to minimal L2 proficiency	Full L1 & L2 proficiency development
Prism Model: Sociocultural Dimension	Social & cultural support while in TBE but only short-term	Full sociocultural support throughout all grades of DLE
Instructional Objectives	Content and language lessons sometimes separated	Content & language objectives combined in every lesson
Classroom Lessons	Code-switching and translation allowed	Monolingual lesson delivery; translation de-emphasized
Teaching Strategies	Cooperative learning <u>optional</u>	Cooperative learning emphasized
	Scaffolding <u>optional</u>	Scaffolding emphasized
	Multi-sensory approach <u>optional</u>	Multi-sensory approach emphasized
Language Ratios	50% English & 50% L1, leading to 100% English	50% English & 50% L1 OR 90% L1 & 10% English, leading to 50%-50% by 4 th grade; 50:50 maintained
Classroom Language Models For Students	Teacher only	Teacher and peer students
Instructional Grouping	Homogeneous	Heterogeneous
Student Self-esteem	Can be negative because of remedial nature of program	Elevated self-esteem and pride from participating in "gifted" program
Program Outcomes: Short-term Achievement	Short term: Content achievement gains in English; group test scores top out at 25th-35 th percentiles by grades 4-5	Short term: Content achievement gains in L1 & L2 ; scores to 50 th percentile (and above) in L1 & L2 by end of elementary years
Program Outcomes: Long-term Achievement	Long term: Only half of the achievement gap closed in English. "slow slide" afterward because of failure to consistently make one-year's progress in one year's time	Long-term: All of achievement gap closed in L1 and L2 by middle school years; gap closure maintained in high school with continued program
Program Outcomes: Attendance	Below average attendance	Increased attendance (because of greater interest in school)
Program Outcomes: Dropout Rate	Higher eventual dropout rate than for DLE	Lower eventual dropout rate than for TBE
Operational Costs: Teachers	Sometimes higher if extra teachers are hired for TBE, as a separate program	No extra cost: Same teacher-student ratio as in mainstream
Operational Costs: Materials	Higher than English-only (but small impact on total budget)	Higher than English-only (but small impact on total budget)
Opportunity Costs: (costs of needs not met while ELL population greatly increases in the future)	Huge future costs in lost productivity from half gap closure, and resulting lower SES	Large future cost savings from full gap closure, increased productivity, increased SES