

**EXAMINING THE BILITERATE
READING TRAJECTORY OF
DESCUBRIENDO LA LECTURA®
CHILDREN IN LITERACY
SQUARED® CLASSROOMS**

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PURPOSE OF THIS STUDY

- The purpose of this study was to examine the biliterate reading trajectory of DLL students who participated in a longitudinal study wherein they received paired literacy instruction via a comprehensive biliteracy model beginning in first grade (hereafter referred to as Literacy Squared).
- The study was done in response to Escamilla, Loera, Ruiz, and Rodríguez's (1998) request to examine the influence of Descubriendo la Lectura on English, as well as Spanish, literacy acquisition.



SIGNIFICANCE OF THE STUDY

- 2000 census – 10 million children entering U.S. schools are ELLs (we will call these children Emerging Bilingual Children – EBs).
- 2000 census – 18% of all school aged children are ELLs (EB).
- 2001 Thomas and Collier study looking at 210,000 children concluded: “The majority of literacy programs for ELLs failed to bring these students to average levels in reading.”
- Bernhardt et. al. (2011) have questioned whether or not any “real progress” has been made over the past decade in efforts to help EBs gain high levels of literacy in English.
- Above results are even more alarming when considering EB students who may struggle in their acquisition of literacy.



THEORETICAL FRAMEWORK (CLAY, 1989)

- **Reading Recovery® and Descubriendo la Lectura® have two theoretical assumptions:**
 - **Acceleration**
 - **Sustaining Effects**
- **Acceleration:** With RR/DLL intervention struggling readers should be able to be accelerated into ‘average’ reading levels with intense one-on-one intervention in first grade.
- **Sustaining Effects:** The effects of RR/DLL should be maintained after discontinuation without need for additional interventions.



POTENTIAL DIFFERENCES IN SUSTAINING EFFECTS FOR RR AND DLL CHILDREN

- RR students speak a status language;
- RR students can be assured of continuing to receive reading instruction in English after 1st grade;
- RR students have teachers who are proficient in English and of their cultural group;
- RR students are generally NOT expected to learn to read and write in a second language in elementary;
- RR students are distributed among SES groups.
- DLL students speak a marked language;
- DLL students may be in early exit TBE programs and be exited as early as 2nd grade and never have Spanish reading again;
- DLL students may not have teachers who are fully qualified bilingual teachers;
- Teachers may or may not be culturally proficient;
- DLL students have to make a transition to English (a second language).
- DLL students tend to be poor.



EMPIRICAL EVIDENCE FOR DLL

- Research by Escamilla, Andrade, Basurto, & Ruiz (1994) provided empirical evidence that acceleration of DLL students is parallel to that of RR children in 1st grade;
- Research by Escamilla, Loera, Ruiz, & Rodríguez (1999) provided empirical evidence for sustaining effects of DLL students after 1st grade;
- These studies were conducted in schools and states implementing sequential transitional bilingual education programs.
- These studies are over a decade old.



CURRENT STUDY

- Empirically tests efficacy of DLL with regard to:
 - Acceleration
 - Sustaining effects;
- For children participating in Literacy Squared in two elementary schools in Colorado;
- Examines the same children with regard to their trajectories toward biliteracy;
- Examines Spanish and English literacy achievement utilizing informal reading assessments;
- Examines Spanish reading outcomes using formal reading measures (CSAP).



LITERACY SQUARED

PAIRED LITERACY VS. SEQUENTIAL BILINGUAL MODELS

Paired Literacy

- Designed for simultaneous bilingual children;
- Begins formal literacy instruction in Spanish and English in Kdg.;
- Literacy based ESL is the ELD program;
- Spanish literacy and literacy based ESL continue through grade 5.
- Explicit and direct teaching of cross-language connections.

Sequential Bilingual

- Assumes a dominant language;
- Begins formal literacy instruction in the dominant language (Spanish);
- Delays literacy instruction in English until transition criteria are met;
- ELD is focused on listening and speaking;
- After transition, Spanish literacy and ELD is dropped.



Literacy Squared® Conceptual Framework

Improving academic achievement for emerging bilingual children includes:



Conceptual Construct #1 - Language of Instruction

- Holistic bilingual framework
- Biliterate assessment
- Paired literacy instruction
- Simultaneous bilingualism
- Efficacy of bilingual instruction

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Conceptual Construct #2 - Quality of Instruction

- Comprehensive biliteracy development in Spanish and English including:
 - *Oracy
 - *Reading
 - *Writing
 - *Metalanguage
- Explicit and direct instruction in Spanish and English literacy
- Fidelity of implementation

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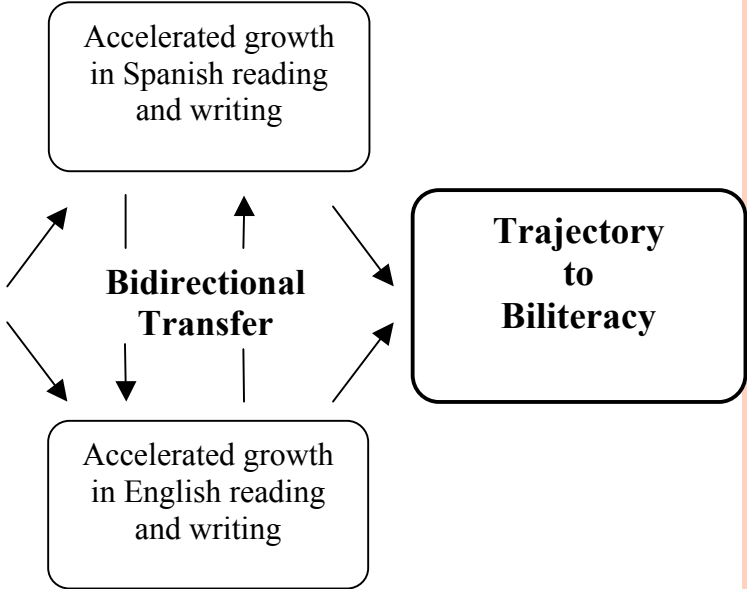
Conceptual Construct #3 - Cross-Language Connections

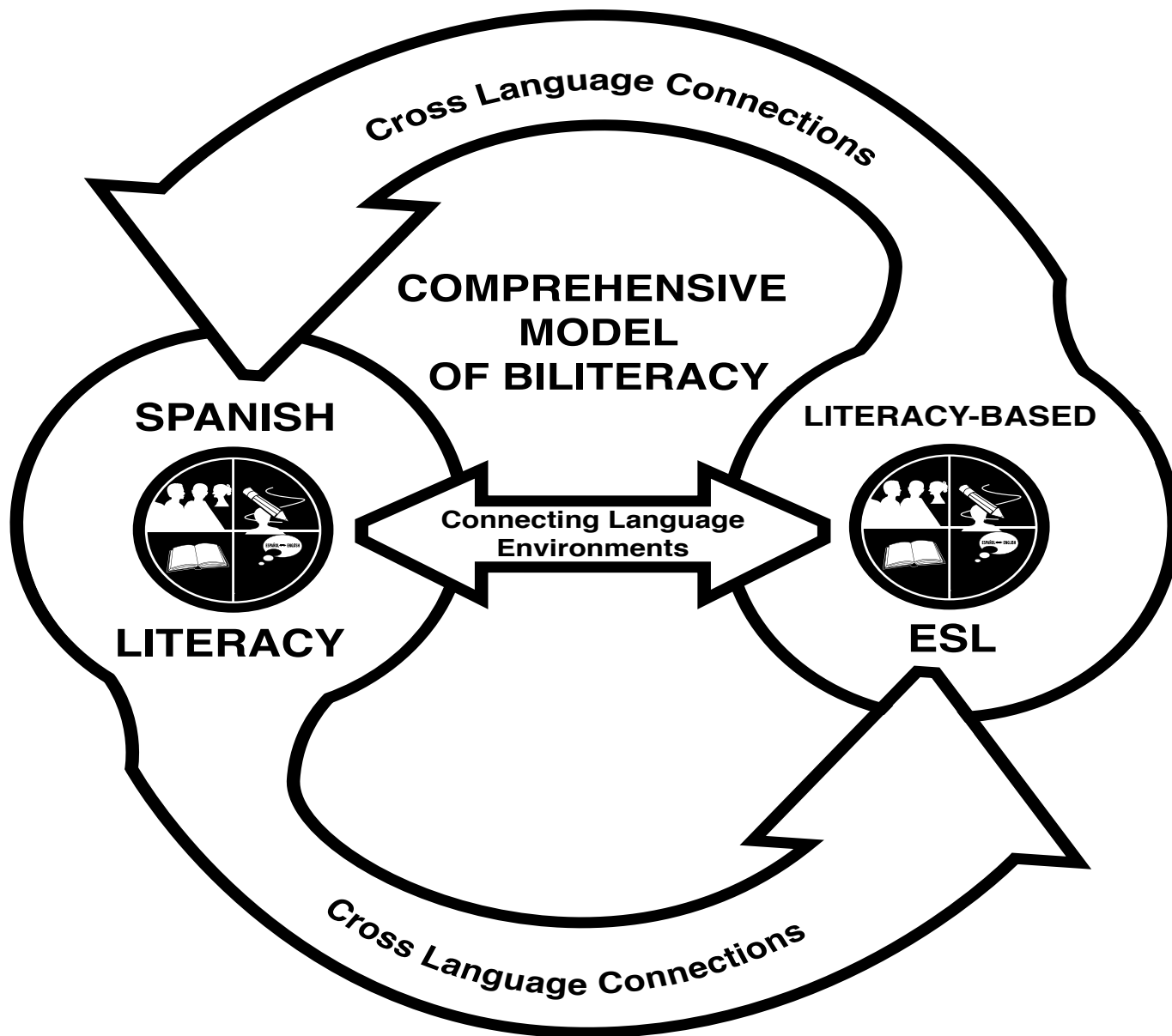
- Explicit and direct teaching of cross-language connections between Spanish and English
- Culturally relevant pedagogy

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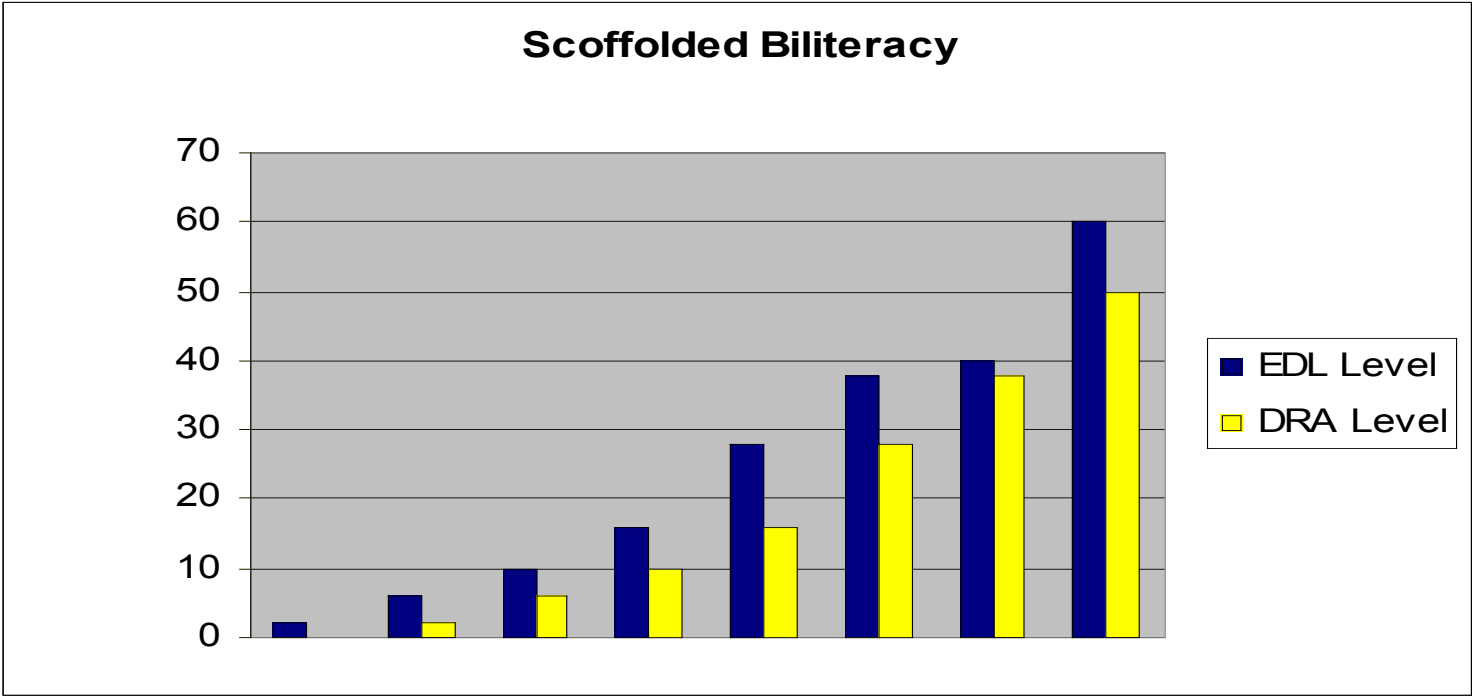
Literacy Squared® Instructional Model

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TRAJECTORY TOWARD BILITERACY



Scaffold to Biliteracy Targeted Zones	
EDL Level, Spanish	DRA Level, English
A-6	A-2
8-10	3-6
12-16	8-10
18-28	12-16
30-38	18-28
40	30-38
50-60	40+



RESEARCH QUESTIONS

1. How do discontinued DLL students in Literacy Squared classrooms compare to other Literacy Squared students in first grade? Is there evidence of acceleration in first grade and sustaining effects in 2nd and 3rd grades?
 2. What is the trajectory toward biliteracy that is demonstrated by the discontinued DLL students in the study?
 3. How does the trajectory toward biliteracy of discontinued DLL students compare with the overall trajectory toward biliteracy of students in these same schools?
 4. How does the performance of discontinued students compare with the overall performance of students based on the 3rd grade Spanish CSAP (Lectura)?
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METHODS: QUANTITATIVE STUDY

- Quasi-experimental utilizing ex-post facto data
- 2 schools in the Denver Public School District that were implementing both DLL and Literacy Squared®
- Collected and analyzed data for 2 cohorts of children for three consecutive years
- Data presented in this presentation includes 1 of these cohorts (children who were in 1st grade in 2008-09)
- Measures:
 - EDL2 and DRA2: informal reading measures
 - CSAP Lectura:3rd grade formal reading measure



SETTING

- 2 Literacy Squared schools in Denver, Colorado
- These schools were segregated in 3 ways:
 - Ethnicity, language, and poverty

	School A	School B
Enrollment	649	444
FRL	91%	96%
Latino	90%	90%
ELLs	75%	72%



PARTICIPANTS

- 2008-09 Discontinued DLL students compared to all students in Literacy Squared classrooms at study schools
- DLL: 41 students
 - Criteria for identification, intervention and discontinuation conformed to DLL national standards
 - **23 discontinued DLL students**– complete data for 21
- Comparison group: 51 students in 1st grade 2008-09
- DLL and comparison groups were comparable with regard to proficiency in English (LEP ranges on CELA)



DATA ANALYSIS

- Compared the mean scores from EDL2 and DRA2 of the discontinued students and comparison group students for 2008, 2009 & 2010;
- Conducted a between group analysis using a t test to examine the statistical significance between DLL and comparison students
- Calculated the number and percent of DLL discontinued students in the biliteracy zone compared to the comparison group students
- Examined the number and percent of students scoring at proficient and advanced on the 3rd grade CSAP Lectura exam and compared these results to the comparison group, district and state totals



FINDINGS: RQ 1
 ACCELERATION & SUSTAINING EFFECTS IN
 SPANISH - EDL2

	DLL Discontinued Students		Comparison Group Students		P value
	<i>n</i>	Mean	<i>n</i>	Mean	
2009	21	15.5	51	16.3	.52
2010	20	25.4	48	27.8	.04
2011	19	32.4	31	34.8	.09

FINDINGS: RQ 1
 ACCELERATION & SUSTAINING EFFECTS IN
 ENGLISH - DRA2

	DLL Discontinued Students		Comparison Group Students		
Year	<i>n</i>	Mean	<i>n</i>	Mean	P value
2009	<i>21</i>	2.5	<i>49</i>	5.1	.00
2010	<i>19</i>	10.9	<i>51</i>	13.6	.04
2011	<i>19</i>	19.0	<i>31</i>	23.4	.05

FINDINGS: RQ 2

DISCONTINUED DLL STUDENTS ON A TRAJECTORY TOWARD BILITERACY

	DLL Discontinued Students	
Grade	<i>n</i>	% in Zone
1	<i>21</i>	0
2	<i>19</i>	11%
3	<i>19</i>	11%



Scaffold to Biliteracy Targeted Zones	
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8-10	3-6
12-16	8-10
18-28	12-16
30-38	18-28
40	30-38
50-60	40+

FINDINGS: RQ 3 COMPARISON OF GROUPS ON TRAJECTORY TOWARD BILITERACY

Grade	DLL Discontinued Students		Comparison Group Students	
	<i>n</i>	% in Zone	<i>n</i>	% in Zone
1	21	0	49	4%
2	19	11%	38	18%
3	19	11%	31	32%

COMPARISON OF GROUPS ON PERFORMANCE ON 3RD GRADE CSAP *LECTURA* EXAM (RQ #4)

	DLL Discontinued Students		Comparison Group Students	
	<i>n</i>	% Proficient	n	% Proficient
Aggregate	<i>19</i>	48%		
School A	<i>10</i>	50%		52%
School B	<i>9</i>	59%		68%

COMPARISON OF DLL AND COMPARISON STUDENTS TO DPS 3RD GRADE *LECTURA* RESULTS

	DLL	Comparison	District
School A	50%	52%	51%
School B	59%	68%	51%



SUMMARY OF FINDINGS

- DLL is effective with students in Literacy Squared classrooms with regard to acceleration and sustaining effects in Spanish;
- DLL children scored above or near DPS district averages on the CSAP 3rd grade *Lectura* assessment;
- DLL in combination with Literacy Squared is helping children to overcome struggles with initial literacy acquisition and paired literacy instruction is not impeding Spanish;
- DLL children lag behind comparison children in English literacy acquisition and this lag is statistically significant at all grade levels;
- English literacy outcomes at the study schools are much lower than Spanish outcomes for all students (21% - School A; 39% - School B).



IMPLICATIONS

- DLL and comparison children in the study are becoming literate – their issues are *language* and *not literacy* related;
- For these reasons, a literacy based ESL program that focuses on oracy, reading, writing and metalanguage is likely more appropriate than an additional reading intervention that is focused on phonics and de-coding (they can already de-code);
- Additionally, direct instruction connecting their literacy environments is also potentially beneficial;
- It takes 5-7 years to become proficient in English (Thomas & Collier, 2001; Cummins, 1981) – be patient;
- We need to continue to work on our theories regarding literacy acquisition for EBs, current monolingual theories won't work.



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