The Science of Dual Language Learning for Children Birth Through Age Five: Effective Practices that Improve Outcomes

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Who is a Dual Language Learner?
Terminology Matters!

- Dual language learners are young children learning two or more languages at the same time, as well as those learning a second language while continuing to develop their first (or home) language.

- Includes simultaneous and sequential, successive

Demographic Urgency

Diverse group that is growing—
in size and diversity of backgrounds...

- More than 30% of children enrolled in Head Start live in households where English is not the primary language (ACF, 2013)

- 15% of K-12 Enrollment in U.S (2011, NCES);

- 27% of all children in U.S. born in DL homes; most speak Spanish (80-85%)
Diversity Within the DLL Population

- Countries of origin; family cultures
- Immigrant vs non-immigrant experience
- Exposure and opportunities to learn in home language & English
- Socioeconomic status and parental education

March 2014

POLL #1

Who are dual language learners and what do we know about their development and achievement?

Developmental Paradoxes!!
Assessment for Preschool Children from Culturally and Linguistically Diverse Backgrounds

POLL #2

Poll #2: Answer

“... young DLL children may know certain words in the home language, but not in English, and as a result, they may have a smaller vocabulary than English or Spanish monolinguals. For example, they may know the names of objects in the kitchen and home in Spanish but not in English. In these cases the child may look like he has limited vocabulary in each language.”

In Challenging Common Myths About Young Dual Language Learners: An Update to the Seminal 2008 Report Page 17

POLL #3
Recent studies from cognitive neuroscientists have found differences in brain activity in the areas of the brain that process language across bilingual and monolingual PreKindergarteners. Young bilingual children develop more widely dispersed and evenly distributed neural pathways across both brain hemispheres.

These studies have also demonstrated that knowing more than one language does not delay the acquisition of English or impede academic achievement in English when both languages are supported. Research on children who learn English after their home language has been established—usually around three years of age—has also shown that most young children are capable of adding a second language and that this dual language ability confers long-term cognitive, cultural, and economic advantages.
Even when teachers do not speak the child's home language, there are many specific teaching practices that will support continued development of the home language. Teachers and ancillary staff can support children’s home language throughout the day in all kinds of learning situations; they can also train parents, community members, and volunteers to work with DLL children in their home language.

In Challenging Common Myths About Young Dual Language Learners: An Update to the Seminal 2008 Report Page 12

**LATEST RESEARCH ON DLL DEVELOPMENT AND ACHIEVEMENT**

2. National Academies of Sciences: Report on Fostering the Success of DLLs, Birth to 18 (in process)
3. Center on Early Care and Education Research-Dual Language Learners: 30 products on DLLs [http://cecerdll.fpg.unc.edu/](http://cecerdll.fpg.unc.edu/)
Children from Low-income and Dual Language Families Highly Vulnerable to Underachievement

- NAEP Scores
- State Achievement Data
- K Entry Data
- High School Completion
- College Enrollment

How Much of Achievement Gap is Due to Language Status (DLL) vs Poverty vs Cultural/Linguistic Discontinuity??

Dual Language Learners are Very Diverse

- Context Matters!
  - SES
  - Country of origin
  - Languages spoken
  - Age of exposure
  - Quantity and quality of language inputs
  - Opportunities to use language
Having a second language is sometimes linked to higher achievement in English... ECLS-K data analysis.  
Espinosa, et al., 2007

“The combination of living in poverty and having limited access to early education increases the vulnerability of young DLLs to negative outcomes.”  
Castro, Espinosa, & Paez, (2011)

“Having more than one language during ECE years should not be considered a risk factor!!”

What WE Do in ECE Programs (from bus rides to meals to storybooks) Will Have Long-term Benefits for Children.
Young DLLs Often Underserved or Inappropriately Served

- Missed opportunities
- Unrealized potentials

The Science of Early Bilingualism

1. Capacity of Young Children; Age of Exposure
2. Benefits/Differences: Cognitive, Social, Linguistic, Executive Function Skills, Family Dynamisms Vocabulary
3. Need to Support Both Languages
4. Families are Critical Partners

Infant Brains & Bilingualism: Study Methods
Research Base

- Brain development of young bilinguals:
  - Different than monolinguals
  - Two linguistic systems develop
  - At birth, can perceive all phonemes in all languages; by 10-12 months, phonemic pruning has occurred

Cognitive Development*

Young bilinguals show advanced skills in non-verbal executive control skills...detectable at 7 months!

- Inhibitory control (ability to resist a habitual response or information not relevant)
- Working memory or updating (ability to hold information in mind and mentally manipulate it)
- Cognitive flexibility (ability to adjust to changes in demands or priorities and switch between goals)

Language and Literacy Development of DLLs*

- Timing: age of exposure
- Amount and quality of exposure
- Opportunity to use and practice


Language and Literacy Development of DLLs...

- Vocabulary development looks different: longer lexical retrieval time
- Smaller vocabularies in each language; conceptual vocabularies when combined in 2 languages comparable
- Speech production somewhat slower
- Grammatical development differed
- Cross-language (L1-L2) influences varied by similarities of 2 languages

Social Emotional Development of DLLs*

- Children of Mexican immigrant families tended to have more social-emotional competencies (initiative and self-control) and fewer behavior problems than nonimmigrants at K entry.

Bilingual Advantages Tied to Extent of Bilingualism

- Balanced bilingualism necessary for cognitive, linguistic benefits
- Bilingual advantages found across cultural and SES groups

Language Exposure and Opportunity to Use Best Predictors of Proficiency

- Children need opportunities to hear, process, and use language during meaningful interactions
- Research suggests I/Ts need sufficient time with high quality input in language to learn it

EARLY CARE AND EDUCATION CONTEXTS

Child care appears to be especially beneficial for DLLs: larger gains than other children

- in center-based care
- in high quality care
- when home language is spoken in setting

Evidence suggests DLLs are less likely to

- be in child care before Pre-K
- be enrolled in center-based care before Pre-K
- experience high quality care or use home language in center care


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Assessment for Preschool Children from Culturally and Linguistically Diverse Backgrounds

Importance of Supporting Both Languages

- Frequently early English exposure leads to loss of home language
- Carefully balanced language approach is needed during early years
- Learning English is important, but should not come at the expense of continued development in first language

What does this mean?

- DLLs should not be expected to perform like monolinguals: different patterns of development
- Initial differences may look like delays; DLLs need time and language learning opportunities to become proficient in both languages
- Bilinguals cannot be compared to monolingual norms when assessing children

Need to revise and implement improved policies and practices birth to eight that reflect the current research on bilingual development and the realities of local contexts.
Challenge: How do we support home language development and promote English language development with multiple languages of children/families, monolingual teachers, different educational contexts?

Program Approaches, Interaction and Instructional Strategies that Promote Improved Development and Achievement for DLLs

First--- Warm, Responsive, Enriched Interactions and Good Instructional Practices Help Dual Language Learners (but are not sufficient)

Goldenberg, et al., 2013
Considerations When Implementing a Language Model for Pre-K DLLs

- **Language Goals:** Dual language or balanced approach with explicit bilingualism and bi-literacy goals?

- **Staffing Capacity:** Language abilities of program staff, families, community

**First Step**

- Early in the year or at registration have a conversation with parents:
  - Collect information on child’s earliest language experiences, current language opportunities, family feelings about maintaining home language, family interests and talents
  - Record and use information
  - Conduct in family’s preferred language (may need to hire an interpreter)

Important for establishing rapport, respect, and common focus on child’s well-being; Building relationship based on trust.
**DLL program considerations...**

- **Structure of program: Who will speak which language and for what purposes? 50-50, 90-10, 75-25?**
  - Or
- **ELD with home language support? Each requires careful planning and frequent monitoring.**

**Considerations, ...**

Develop initial language goals for child:

E.g., if child has very little English and is mostly listening and following others or using only one-word responses, then design many opportunities for child to build receptive language skills and minimize demands for child to speak English publicly.

**Must know child’s stage or level of English acquisition**

**Examples of Phases of Second Language Acquisition**

<table>
<thead>
<tr>
<th>Phases of second language acquisition</th>
<th>Example</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Language</td>
<td>William is on the sand table. He asks an English-speaking child, “¿Me das la pala?”</td>
<td>Linda asks the teacher, “¿Cuándo vamos a comer el lonch?”</td>
</tr>
<tr>
<td>Quiet period</td>
<td>Yasmín looks intently to the teacher and remains quiet while the teacher is reading a book aloud in English.</td>
<td>Jessica holds the teacher’s hand to show her something interesting she has discovered in the classroom.</td>
</tr>
<tr>
<td>Telegraphic/Formulaic Speech</td>
<td>Francisco uses expressions such as “Come on!” to invite other children to play in the playground.</td>
<td>Antonio tells one of his classmates, “Two people” to indicate that only two people can be in the housekeeping area.</td>
</tr>
<tr>
<td>Productive Speech</td>
<td>Rogelio announces after being in the playground, “I sandbox in shoe.”</td>
<td>Jessica tells the teacher, “Carlos es mi friens.”</td>
</tr>
</tbody>
</table>
Setting Up the Environment

- Labeling in both languages (color coding)
- Visual cues pictures and graphics
- Word walls in both languages
- Daily schedule with pictures and both languages represented

Example of Daily Routine

Example of Daily Schedule
Language, Any Language, is the Foundation for Literacy......and Literacy in English is Critical for School Success

**Focus on oral language** (extended vocabulary, grammar, narratives, listening comprehension, academic language)

**Explicit/intentional teaching of some language and literacy skills** (phonemic awareness, vocabulary)

**Grouping practices important** (small, instructional groups, structured pairings)

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**Best Practices/Strategies...**

- Anchor book, intentional message, vocab. Imprinting, songs, chants, visual cues/gestures
- Skilled Story Book Reading (specific strategies that build vocab and narrative)
- Bring home language into classroom
- Opportunities to Practice Across Contexts
- Screening and Continuous Assessment
- Strong Parent-Family Partnerships (home visiting, parent-school collaborations, parent education, family support programs)

From Espinosa (2015), Getting It Right for Young Children from Diverse Backgrounds, Chapter 4
And CPPC (2015), DLL Chapter

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**How to Support Home Language While Promoting English Language Development**

- **Set of Strategies that Bridge between home language (L1) and English:**
  - Cognate charts
  - Front-loading vocabulary in home language
  - **Use of photos and pics**

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Assessment for Preschool Children from Culturally and Linguistically Diverse Backgrounds
**ALL ECE Practitioners Can Support ALL Languages**

- If possible, hire qualified bilingual teachers, family liaisons, and assessors
- For monolingual, English speaking teachers there are many strategies to provide rich learning opportunities in each language
  - Bring home language into setting (family, volunteers, community reps.), authentic bilingual materials, music, CDs, activities
  - Videos

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“....young dual language learners are learning through two languages and both languages must be supported through intentional instruction, specific language interactions, frequent assessments of children's progress in both languages, and culturally sensitive engagement with families.”

From CA Preschool Program Guidelines, 2015

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**Conclusion**

While all ECE teachers cannot instruct in all languages, all teachers can support all languages by working with families and using specific strategies that bring home language and culture into ECE settings.