



# Comparing two-way bilingual instruction programs: Is it best to teach reading in both languages at the same time or in sequence?

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## INTRODUCTION

**Instruction Type** For decades, debates have raged over whether children should be taught one language before another language (Sequential or 90/10) or both languages at the same time (Simultaneous or 50/50)<sup>1-6</sup>

**NEW QUESTION** Is *Sequential* or *Simultaneous* bilingual language schooling most optimal for teaching young bilinguals to *read* in early grades?

**Language Proficiency** Research with monolingual English children shows that language proficiency affects reading development<sup>7-8</sup>

**NEW QUESTION** Does the *age* of first bilingual exposure affect *language* and *reading proficiency* in young bilinguals<sup>2,5,6,9</sup>

## HYPOTHESES

Simultaneous bilinguals will perform better on English tasks and Sequential bilinguals will perform better on Spanish tasks. Bilingual schooling may afford *reading advantages*<sup>8</sup> even to children from monolingual English-speaking homes

## METHODS

Group	N	Age of English Exposure	Age of Spanish Exposure	Languages at Home	Reading at Home	Reading in Class
Birth Bilinguals (a)	38	birth-3	birth-3	English & Spanish	English & Spanish	English & Spanish
Late Bilinguals (b)	67	3-6	birth-3			
English Dominant Bilinguals (c)	58	birth	3-6	English Only	English Only	
Monolinguals	48	birth	NA	English Only	English Only	English Only

6 Schools using **WITOLE-WORD** reading instruction approach

2 **Instruction Type for Bilinguals**

*Simultaneous* (n=82) Spanish (50%) and English (50%) from Kindergarten  
*Sequential* (n=81) Transitional Spanish and English from Kindergarten

2 **Languages**

Spanish – a language with “shallow” orthography

English – a language with “deep” orthography

2 **Classroom Types**

Bilingual (Spanish-English, n = 163); Monolingual (English, n = 48)

2 **Grades**

2nd & 3rd grades (N=211 children, ages 7-9)

## TASKS

Standardized Tasks both in Spanish and in English

- **Language Competence & Proficiency**
- Reading Decoding - Non-Words, Regular Words
- **Phonological Awareness** - Initial & Final Phoneme Deletion, Phoneme Segmentation
- Irregular Words
- Passage Comprehension

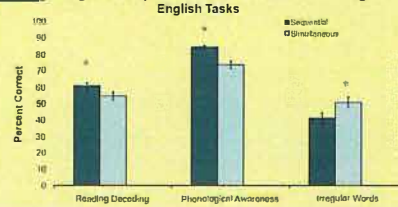
## RESULTS

### ENGLISH

On *Language-Specific* tasks (Irregular Words  $p < .005$ ) *Simultaneous* bilinguals outperformed Sequential bilinguals

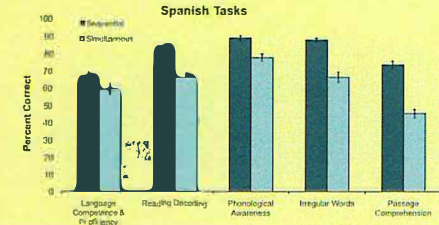
On *Language-General* tasks (Phonological  $p < .001$  & Reading Decoding  $p < .035$ )

*Sequential* bilinguals outperformed Simultaneous bilinguals



### SPANISH

Bilinguals in Sequential programs, who are taught primarily in Spanish, outperformed bilinguals in Simultaneous programs across Spanish tasks  $p < .001$



## DISCUSSION

**Reading Instruction Type** Young bilinguals educated in *Simultaneous*

Bilingual programs performed best on English Language-Specific tasks.

Young bilinguals educated in *Sequential* Bilingual programs performed best

on English Language-General tasks. As predicted, bilinguals educated in Sequential Bilingual programs performed best on all Spanish tasks

**Age of Exposure** In young bilinguals, high language proficiency was related to high reading proficiency. Age of first bilingual exposure does impact both language and reading proficiency in bilinguals: Birth Bilinguals performed optimally, and better than Late Bilinguals on both language and reading tasks in English

**Schooling Type** Remarkably, young children raised in monolingual English-speaking households and educated in Simultaneous Bilingual schools performed better than all other children raised in English monolingual homes, even those educated in a monolingual English school (c)

## CONCLUSIONS

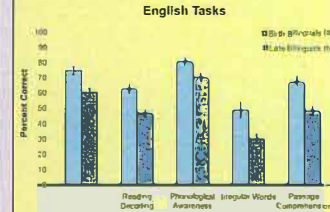
Both Simultaneous and Sequential reading instruction impact reading acquisition and reading success, but in different ways:

**Simultaneous** schooling is most advantageous for mastering language and reading skills in both languages, and further facilitates analysis of underlying *grammatical class/structure*

**Sequential** schooling facilitates analysis of surface *phonological regularity*

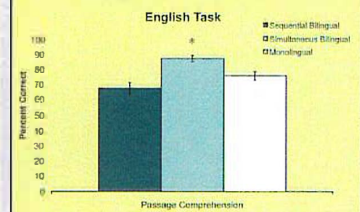
## AGE OF EXPOSURE

Birth Bilinguals (a) performed better than Late Bilinguals (b)  $p < .05$



## SCHOOLING TYPE

English monolingual children educated in Simultaneous Bilingual programs outperformed English monolingual children in Sequential Bilingual and, crucially, *Monolingual English* Schooling Passage Comprehension  $p < .05$



## REFERENCES

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