



Multilingual Children's Speech Development

ENGLISH + SPANISH

Multilingual Children's Speech Development

Presented by: Brian A. Goldstein

English + Spanish Authors

- **Brian A. GOLDSTEIN**, PhD,
University of St. Augustine for Health Sciences, USA
bgoldstein@usa.edu

Source: Goldstein, B. A. (2025). English + Spanish speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*. Oxford University Press.



English + Spanish

■ Commonly spoken in

- Spanish: Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Equatorial Guinea, Guatemala, Honduras, Mexico, Nicaragua, Peru, Puerto Rico Spain, Paraguay, Panama, Uruguay, Venezuela
- English: United States, Belize

■ Dialects and variants

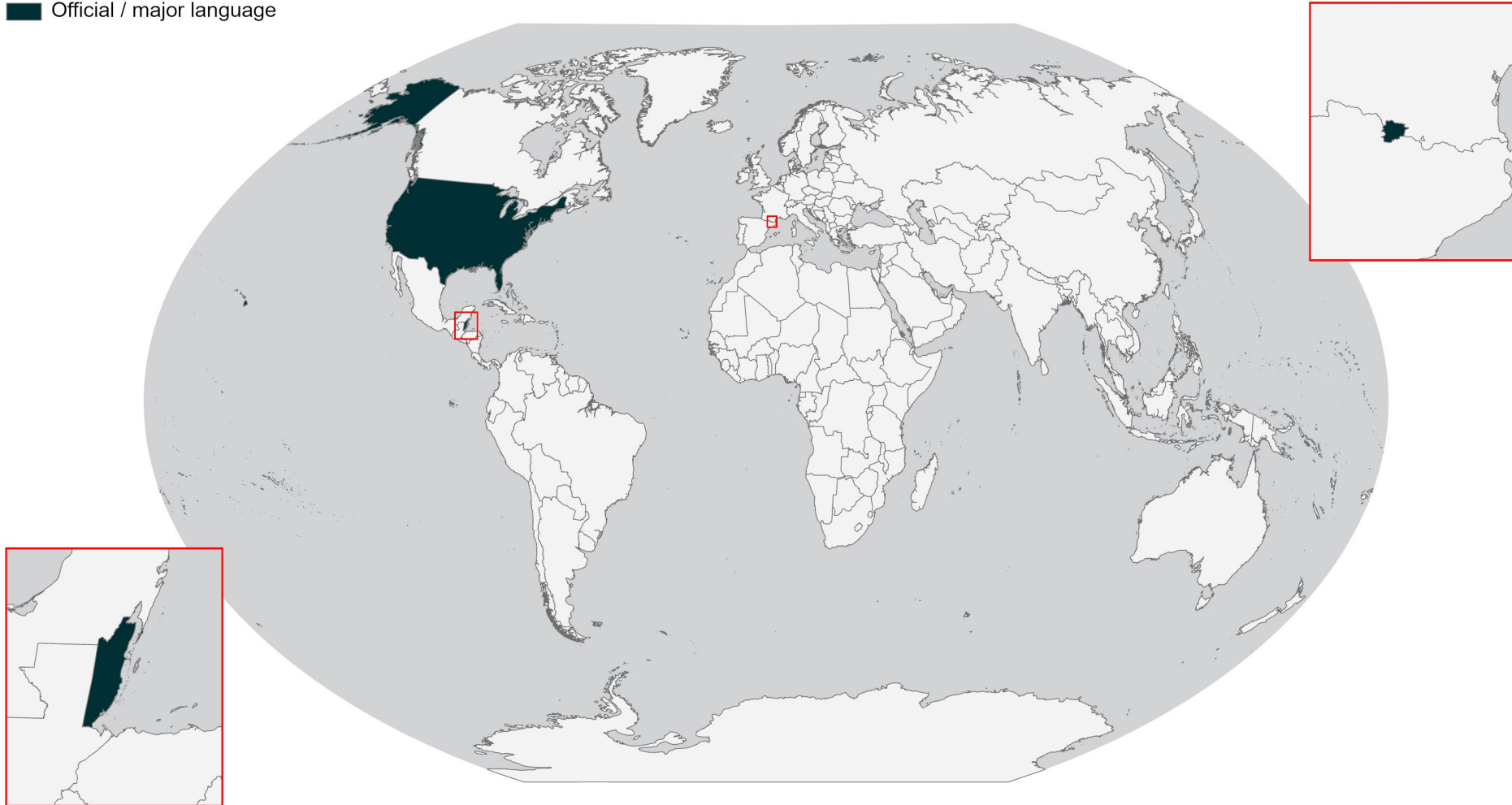
- Spanish: Inland, Coastal
- English (Labov, 1997): North (North Central, Inland North, Eastern New England, Western New England, New York City); South (Midland, Northern Midland); West

■ Writing

- Left to right. Latin alphabet (Roman script).
- Example:
 - Spanish - Yo soy una terapeuta del habla y language bilingüe.
 - English – I am a bilingual speech-language therapist.

English + Spanish Map

Official / major language



The authors acknowledge assistance provided by the Spatial Data Analysis Network (SPAN) at Charles Sturt University, and in particular Craig Poynter, for his work creating this map. Figures/maps/imagery created using ESRI ArcGIS Pro 3.1 software and data contained within ESRI's Living Atlas.

Spanish + English Speech Components

Spanish

- **Consonants:** /p, b (/β/), t, d (/ð/), k, g (/ɣ/), m, n, ɲ, r, r̄, f, s, x, ʎ, w, j, l/
- **Consonant clusters:** /pl, pr, bl, br, tr, dr, kl, kr, gl, gf, fl, fr/
- **Vowels:** /a, e, i, o, u/
- **Tones (0):** None
- **Phonotactic restrictions:** $C_{(1-2)}V_{(0-2)}C_{(0-2)}$
- **Prosody**
 - (Largely) penultimate stress
 - Syllable-timed language
 - Stressed syllables in Spanish are 1.2 to 1.3 times longer than unstressed syllables compared with English in which stressed syllables are 1.5 times longer, on average, than unstressed syllables (Delattre, 1965).

English

- **Consonants:** /p, b, t, d, k, g, m, n, ŋ, f, v, θ, ð, s, z, ʃ, ʒ, h, tʃ, dʒ, w, j, l, ɹ/
- **Consonant clusters (initial):**
 - /p, b, k, g, f, s/ + //
 - /p, b, k, g, f, θ, ʃ/ + /ɹ/
 - /s/ + /p, m, n, l/
 - /s/ + /p/ + //
 - /s/ + /p, t, k/ + /ɹ/
 - /s/ + /p/ + //
 - /sw/, /tw/, /dw/, /kw/, /skw/, /gw/
- **Vowels:** /i, ɪ, e, ε, æ, ə, ʌ, u, ʊ, o, ɑ, aɪ, ɔɪ, aʊ/
- **Tones (0):** None
- **Phonotactic restrictions:** $C_{(0-3)}V_{(1-2)}C_{(0-4)}$
- **Prosody:**
 - Stress depending on word length and syntactic category (among others)
 - Stress-timed language

English + Spanish Age of Acquisition

- **Consonants**

- Spanish: Early /m, n, ɲ, t, k, x/

Middle /p, β, f, s, ʎ, ɣ/

Late /ð, l, r, r/

- English: Early /m, b, j, n, w, d, p, h/

Middle /t, k, g, ŋ, f, v, ʃ, dʒ/

Late /ð, s, z, θ, ʃ, l, ɹ/

- **Consonant clusters**

- By 6;0

- **Vowels**

- By 2;0 (Spanish)

- **Tones**

- Not applicable

English + Spanish Speech Development: (Spanish-English Bilinguals)

- **Percentage consonants correct**
 - 55% by age 3;6
 - 72% by age 4
 - 90%+ by age 6
- **Common phonological patterns**
 - Fronting
 - Stopping
 - Flap/trill deviations
 - Unstressed syllable deletion
 - Cluster reduction

English + Spanish Children with Speech Sound Disorders

■ Also called

- trastorno del del habla → speech sound disorder
- trastorno fonológico → phonological disorder
- trastorno de articulación → articulation disorder
- apraxia del habla infantil → childhood apraxia of speech
- disartria → dysarthria

■ Research has focused on

- Typical development, speech sound disorders, assessment, intervention

■ Studies (examples)

- Phonological acquisition (Cooperson et al., 2013; Fabiano-Smith & Goldstein, 2010; Kehoe & Havy, 2019)
- Speech sound disorders (Stertzbach & Gildersleeve-Neumann, 2005)
- Assessment (Holm & Dodd, 1999)
- Intervention (Gildersleeve-Neumann & Goldstein, 2015)

Spanish + English Speech Assessments

Spanish

- **Assessment of Phonological Processes-Spanish** (Hodson, 1986)
- **Assessment of Spanish Phonology – Revised** (Barlow, 2003)
- **Bilingual Articulation Phonology Assessment: English/Spanish (BAPA)** (Fernandes et al., 2012)
- **Bilingual English-Spanish Assessment (BESA)** (Peña, et al, 2014)
- **Comprehensive Assessment of Spanish Articulation-Phonology (CASA-P)** (Brice et al., 2009)
- **Contextual Probes of Articulation Competence: Spanish (CPACS)** (Goldstein & Iglesias, 2010)
- **Hodson-Prezas Assessment of Spanish Phonological Patterns** (Hodson & Prezas, 2010)

English (representative examples)

- **Bankson-Bernthal Test of Phonology** (BBTOP; Bankson & Bernthal, 1990)
- **Clinical Assessment of Articulation and Phonology** (CAAP; Secord & Donohoe, 2002)
- **Diagnostic Evaluation of Articulation and Phonology: Articulation Assessment** (DEAP; Dodd, Hua, Crosbie, Holm, & Ozanne, 2006)
- **Fisher-Logemann Test of Articulation** (FLTA; Fisher & Logemann, 1971)
- **Goldman-Fristoe Test of Articulation, 2nd ed.** (GFTA–2; Goldman & Fristoe, 2000); Khan-Lewis Phonological Analysis, 2nd ed. (KLPA–2; Khan & Lewis, 2002)^b
- **Hodson Assessment of Phonological Patterns, 3rd ed.** (HAPP–3; Hodson, 2004)
- **Photo-Articulation Test, 3rd ed.** (PAT–3; Lippke, Dickey, Selmar, & Soder, 1997)
- **Smit-Hand Articulation and Phonology Evaluation** (SHAPE; Smit & Hand, 1992)
- **Structured Photographic Articulation Test, 2nd ed.** (SPAT–II; Dawson & Tattersall, 2001)
- **Templin-Darley Tests of Articulation** (TDTA; Templin & Darley, 1968)

English + Spanish Speech Interventions

■ Intervention

- Bilingual approach (Gildersleeve-Neumann & Goldstein, 2015)
- Childhood apraxia of speech (Gildersleeve-Neumann & Goldstein, 2015)

■ Bilinguals (non-English/Spanish)

- Arabic-English (Mamdouh, 2008)
- Cantonese-English (Holm, Dodd, & Ozanne, 1997; Holm & Dodd, 1999; Holm & Dodd, 2001)
- Hindi, Gujarati, and English (Ray, 2002)
- isiXhosa-English (Rossouw and Pascoe, 2018)
- Portuguese-English (Ramos & Mead, 2014)
- Punjabi-English (Holm & Dodd, 2001)

Reference

Book chapter

- Goldstein, B. A. (2025). English + Spanish speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*. Oxford University Press.

Presentation

- Goldstein, B. A. (2024). *English + Spanish: Multilingual children's speech development*. Charles Sturt University, Australia.
<https://www.csu.edu.au/research/multilingual-speech/languages>
 - Sharynne McLeod, Charles Sturt University, Australia
 - Helen L. Blake, Charles Sturt University, Australia