



Multilingual Children's Speech Development

ENGLISH (English)

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Presented by: Yvonne Wren

English (English) Authors

- **Robert MAYR**

Cardiff Metropolitan University Wales, United Kingdom rmayr@cardiffmet.ac.uk

- **Rachael-Anne KNIGHT**

City, University of London, United Kingdom r.knight-1@city.ac.uk

- **Sally BATES**

University College of St Mark and St John, United Kingdom sbates@marjon.ac.uk

- **Yvonne WREN**

University of Bristol/Cardiff Metropolitan University Wales, United Kingdom

Yvonne.wren@bristol.ac.uk

- **Sara HOWARD**

University of Sheffield, United Kingdom s.howard@sheffield.ac.uk

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English (English)

- **Commonly spoken in**

- ñ England, United Kingdom (UK)

- **Dialects and variants**

- ñ Standard Southern British English (SSBE)

- ñ Multiple regional accents

- **Writing**

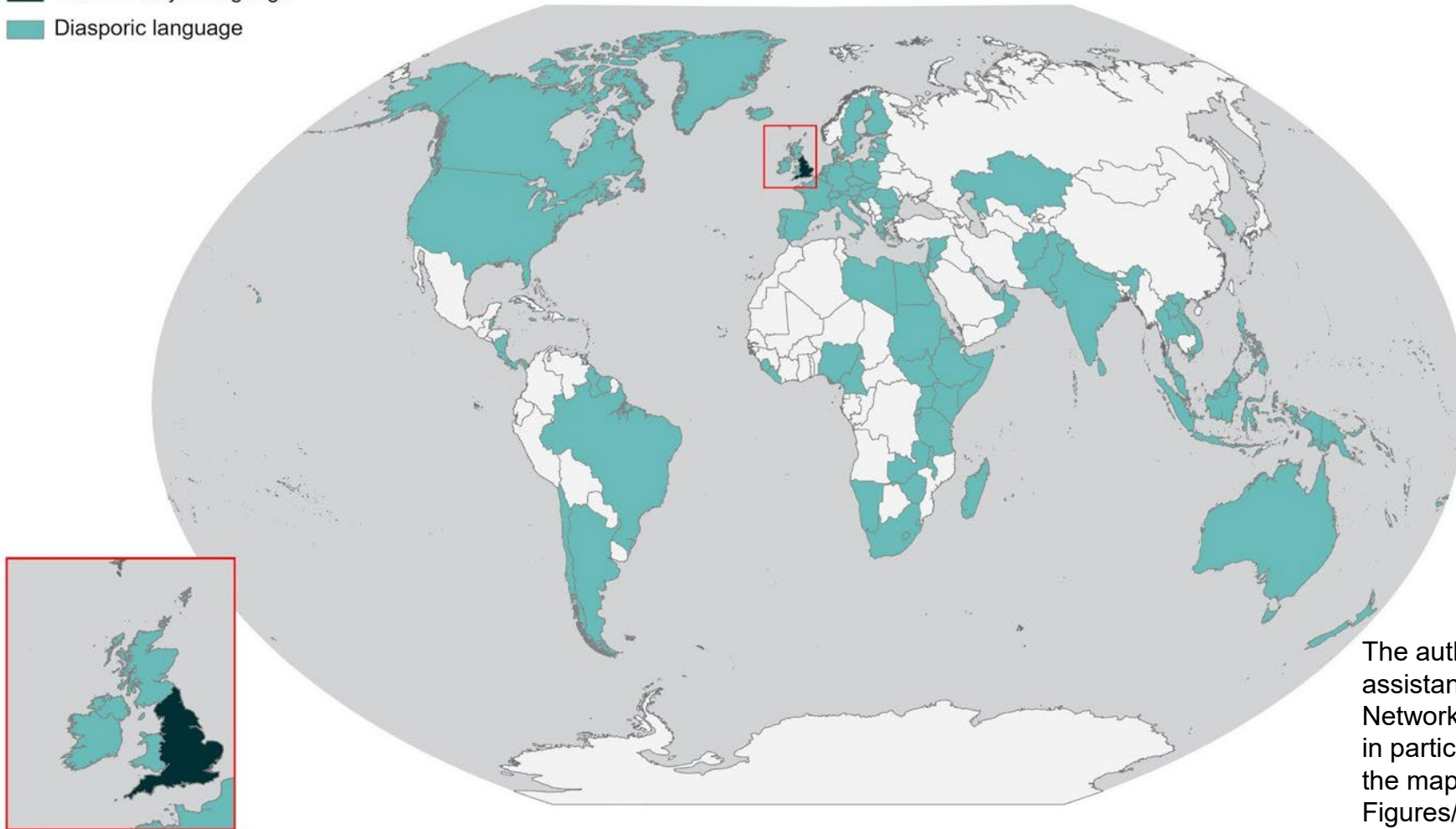
- ñ Left to right. Latin alphabet (Roman script).

- ñ Influenced by many languages so spelling lacks transparency

- ñ Example: **tough** /tʌf/ **cough** /kɒf/ **bough** /baʊ/ **dough** /dəʊ/

English (English) map

- Official / major language
- Diasporic language



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English (English) varieties

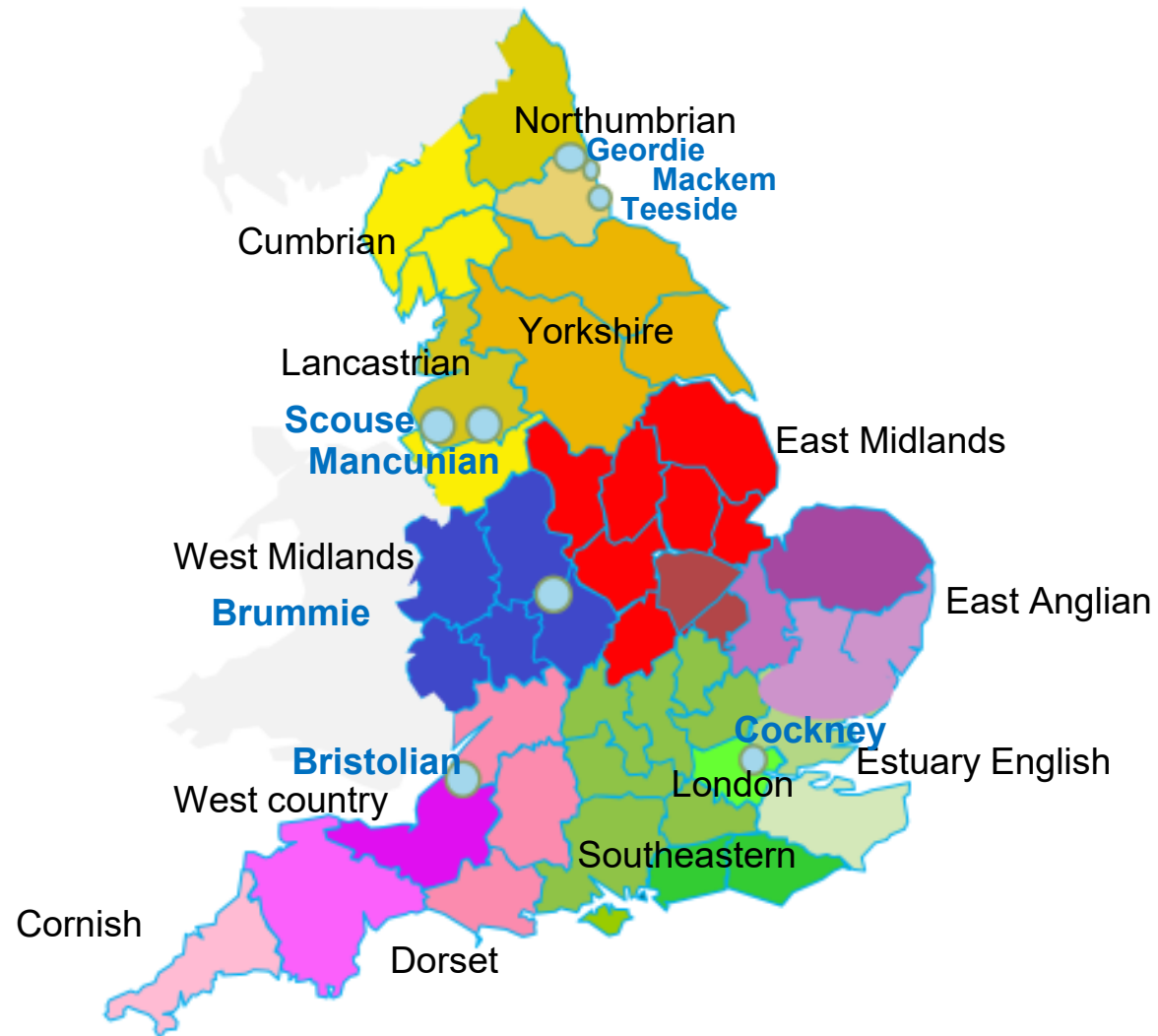


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English (English - SSBE)

Speech Components

- **Consonants (24):** /p, b, t, d, k, g, m, n, ŋ, f, v, θ, ð, s, z, ʃ, ʒ, h, ɹ, j, l, w, tʃ, dʒ/
- **Consonant clusters (many):**
 - Initial: /pr, pl, bɹ, bl, tɹ, tw, dr, dw, kɹ, kl, kw, gr, gl, gw, fl, fɹ, θɹ, sp, st, sk, sm, sn, spl, spɹ, spj, stɹ, skɹ, stj, skw, skj, skl, sl, sw, ʃɹ/
 - Final: /ft, kt, lt, ld, lk, lp, lb, lf, lj, lm, l s, mp, mf, nt, nd, ntʃ, ndʒ, ns, nz, ŋk, ŋg, ps, pt, mpt, sk, sp, st, nθ, dθ, lθ, lfθs/ +more created from morphological word endings
- **Vowels (12+7):** /i, ɪ, u, ε, æ, υ, ɔ, ɒ, ɑ, ɜ, ə, ʌ, aɪ, aʊ, ɔɪ, eɪ, əʊ, ɪə, eə/
- **Tones (0):** None
- **Phonotactic restrictions:** $C_{(0-3)}V_{(1)}C_{(0-4)}$
 - English English follows the same phonotactic rules as other dialects of English
 - Most (but not all) English English accents are non-rhotic
- **Prosody:**
 - English English is a stressed-timed language;
intonation is meaningful at the sentence level (Ladd, 1996)

English (English)

Age of Acquisition

- **Consonants** (Dodd et al., 2003)
 - 3-4 years: /p, b, t, d, k, g, m, n, ŋ, f, v, s, z, tʃ, j, l, w/
 - 4-5 years: /ʒ, dʒ/
 - 5-6 years: /ʃ/
 - 6-7 years: /ɹ/
 - 7 years: /θ, ð/
- **Consonant clusters**
 - Limited information
- **Vowels**
 - All vowels correct by 4-years (Dodd et al., 2003)
and in connected speech by 5-years (Wren et al., 2013,2021)
- **Tones**
 - Not applicable

English (English) Speech Development

■ Percentage correct

ñ **3 years:** consonants 82.11%; vowels 97.39% (Dodd et al., 2003, *N* = 684)

ñ **4 years:** consonants 90.37%; vowels 98.93% (Dodd et al., 2003, *N* = 684)

ñ **5 years:** consonants 95.86%; vowels 99.19% (Dodd et al., 2003, *N* = 684)

ñ Variation across manner of consonant production and sample type (Wren et al., 2013, 2021, *N* = 461)

■ Intelligibility

ñ **2 years:** 12.7% were difficult for their parents to understand (Roulstone et al., 2002, *N* = 1127)

ñ **3 years:** Being unintelligible to strangers is associated with persistent speech disorder (Wren et al., 2016, *N* = 6399)

ñ **3 and 5 years:** Reference data are available for ICS scores for children born with cleft lip and/or palate

■ Common phonological patterns

ñ **3 years:** Voicing, stopping, weak syllable deletion, fronting, deaffrication, cluster reduction and gliding present (Dodd et al., 2003)

ñ **5 years:** Gliding and cluster reduction occurring (Dodd et al., 2003)

ñ Substitution error types more common in non-word repetition and distortion more common in connected speech (Wren et al., 2013, 2021)

*ICS, Intelligibility in Context Scale (McLeod et al., 2012)

English (English)

Children with Speech Sound Disorders

■ Also called

- phonological delay, phonological disorder, articulation disorder, childhood apraxia of speech, dysarthria, speech impairment, speech disorder, DLD(phonology)

■ Research has focused on

- Prevalence, risk factors, assessment, transcription, instrumentation, interventions, impact, terminology and classification, bilingualism
- Phonological awareness, speech perception, childhood apraxia of speech (CAS), cleft lip and palate, dysarthria

■ Studies (examples)

- Classification and labelling of speech sound disorders (Cleland et al., 2023; Waring & Knight, 2013)
- Phonetic transcription practice (Titterington & Bates, 2018)
- Prevalence, risk factors, and impact (Wren et al., 2016, 2021, 2023)
- MISLToe (Maximising the Impact of SLT) (Wren, Cleland, Stringer, Harding & Burr, 2023 current)

English (English) Speech Assessments

- **Diagnostic Evaluation of Articulation and Phonology (DEAP)**
(Dodd, Hua, Crosbie, Holm, Ozanne, 2002)*
- **South Tyneside Assessment of Phonology: Second Edition (STAP2)**
(Armstrong & Ainley, 2012)*
- **PIPA: Pre-school and Primary Inventory of Phonological Awareness**
(Dodd, Crosbie, McIntosh, Teitzel & Ozanne, 2000)*
- **Early Repetition Battery (ERB)** (Seeff-Gabriel, Chiat, & Roy, 2008)*
- **CLEAR Phonology Screening Assessment** (Keeling & Keeling, 2006)*
- **Revised GOS.SP.ASS (98): Speech assessment for children with cleft palate and/or velopharyngeal dysfunction** (Sell, Harding & Grunwell, 1999)*
- **Nuffield Centre Dyspraxia Programme: Third Edition (NDP-3)**
(Williams & Stephens, 2004)*
- **Intelligibility in Context Scale** (McLeod, Harrison & McCormack, 2012)

*Created in England, United Kingdom

English (English) Speech Interventions

- **Core Vocabulary** (Dodd et al., 2010)
- **Maximal Oppositions** (Gierut, 1990)
- **Treatment of the Empty Set** (Gierut, 1990)
- **Metaphonological Intervention** (Hesketh, 2010)*
- **Cycles Approach** (Hodson & Paden, 1983)
- **Metaphon** (Howell & Dean, 1987)*
- **Traditional Articulation Therapy** (Van Riper & Erickson, 1996)
- **Conventional Minimal Pair Therapy** (Wiener, 1981)
- **Multiple Oppositions** (Williams, 2000)
- **Nuffield Centre Dyspraxia Programme** (Williams & Stephens, 2004)*

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Reference

Book chapter

- Mayr, R., Knight, R., Bates, S., Wren, Y., & Howard, S. (forthcoming). English (English) speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*. Oxford University Press.

Presentation

- Mayr, R., Knight, R., Bates, S., Wren, Y., & Howard, S.(2023). *English (English): 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, University of Technology Sydney, Australia