



Multilingual Children's Speech Development



FINNISH

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Source: Kunnari, S., Savinainen-Makkonen, T., Saaristo-Helin, K., & Martikainen, A-L. (forthcoming). Finnish speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*.

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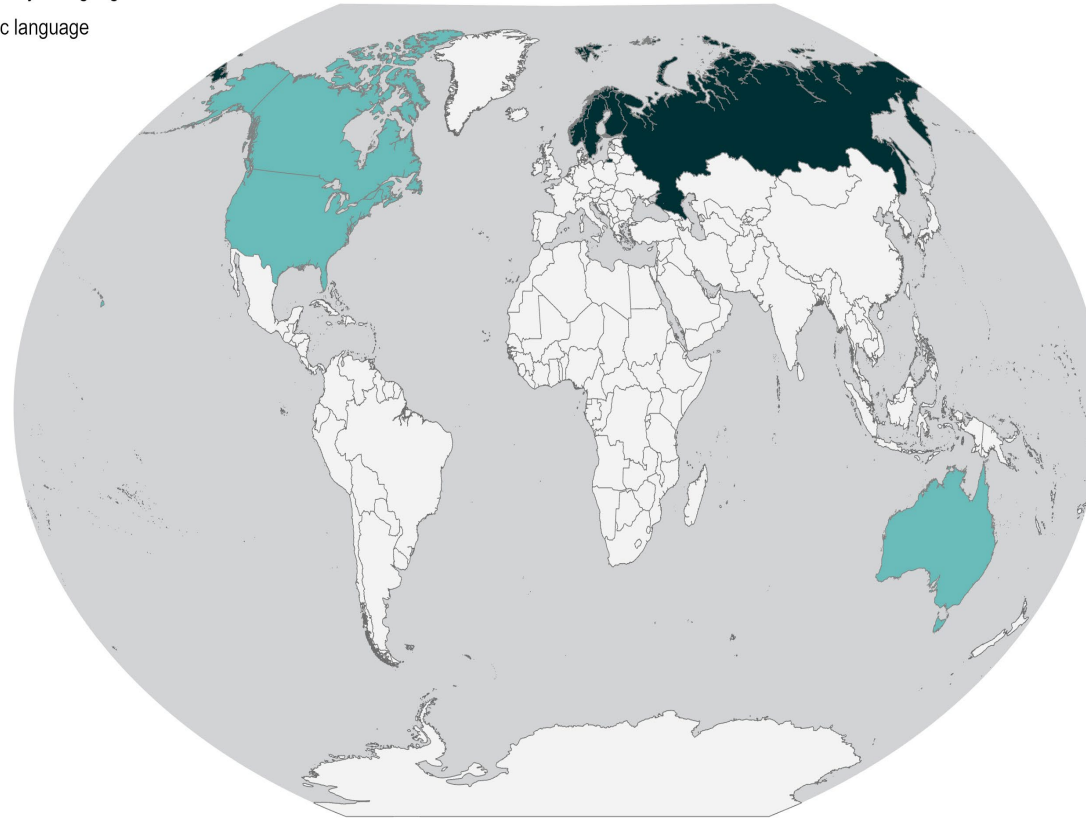


Finnish

- **Commonly spoken in**
 - Finland (minority groups in Sweden, Norway, Russia, North America, and Australia)
- **Dialects and variants**
 - The major Finnish dialects
 - Southwestern dialects
 - Häme dialects
 - transitional dialects between the Southwestern and Häme dialects
 - South Ostrobothnia dialects
 - Central and North Ostrobothnia dialects
 - Peräpohjola dialects
 - Savo dialects
 - Southeastern dialects
- **Writing**
 - Left to right. Modern Latin Alphabet.

Finnish map

- Official / major language
- Diasporic language



The author would like to acknowledge the assistance provided by the Spatial Data Analysis Network (SPAN) at Charles Sturt University, and in particular Craig Poynter, for his work creating the maps included in this book. Maps were created using ESRI ArcGIS Pro 3.1 software and data contained within ESRI's Living Atlas.

Finnish Speech Components

- **Consonants (13+4):** /p, t, d, k, m, n, ŋ, r, s, h, v, j, l/ + /b, g, f, ʃ/
- **Consonant clusters:**
 - No word-final consonant clusters
 - Word-initial consonant clusters are very rare
 - Heterosyllabic clusters are frequent
- **Vowels (8):** /i, e, æ, y, ø, a, o, u/
- **Tones (0):** None
- **Phonotactic restrictions:**
 - All ten basic syllable types can occur in stressed word-initial position while only some are possible in unstressed position later in the word
 - Of the 13 consonants, 11 occur in the word-initial position and 5 in the word-final position
 - All vowels can occur in any word position
 - Vowel harmony restriction
- **Quantity distinction**
- **Prosody:** Primary word stress is fixed to the first syllable

Finnish

Age of Acquisition

- **Consonants**

- Early /p, t̪, k, m, n, v/ Middle /ŋ, h, s, j, l/ Late /d, r/

- **Consonant clusters**

- 83% of consonant clusters are produced correctly by age 3;0 (Saaristo-Helin, 2009)

- **Vowels**

- Vowels /i, e, æ, a, o, u/ are acquired by age 2 years and /y, ø/ by age 3 years

- **Tones**

- Not applicable

Finnish Speech Development

- **Percentage correct**
 - 95% of consonants are produced correctly by the age of 5 years
- **Intelligibility**
 - The mean ICS* score is 4.7 in typically developing 3- to 6-year-old children
- **Common phonological patterns**
 - Word-initial consonant omission, assimilation, substitution, syllable omission in polysyllabic words, cluster reduction, and geminate template matching

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

Finnish Children with Speech Sound Disorders

■ Also called

- Puhehäiriö 'speech sound disorder', Fonologinen häiriö 'phonological disorder', Artikulaatiovirhe 'articulation disorder', Puhemotorinen viive 'speech motor delay', Verbaalinen dyspraksia 'childhood apraxia of speech', Dysarthria 'dysarthria'

■ Research has focused on

- Assessment and intervention of children with speech sound disorders

■ Studies

- Phonological mean length of utterance in children with phonological disorder (Kunnari, Saaristo-Helin et al., 2012)
- Intra-word accuracy and consistency in children with speech sound disorder (Martikainen et al. 2020)
- Speech inconsistency and its association with speech production, phonological awareness and nonword repetition skills (Martikainen et al., 2021)

Finnish Speech Assessments

- **Fonologiatesti** [The Finnish test of phonology] (Kunnari et al., 2012)
- **Artikulaatiotesti** [Test of articulation] (Remes & Ojanen, 1996)
- **Ymmärrettävyys kontekstissa -asteikko: suomi** [Intelligibility in Context Scale: Finnish] (McLeod et al., 2012)

Finnish Speech Interventions

- No named intervention programs for Finnish
- Usually, an eclectic intervention approach blending different approaches (e.g., auditory discrimination, auditory bombardment, minimal pairs, phonological awareness, traditional articulation therapy, auditory cues, Prompts for Restructuring Oral Muscular Phonetic Targets, Dynamic Temporal and Tactile Cueing, core vocabulary intervention) is adopted in clinical practice

Reference

Book chapter

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Presentation

- Kunnari, S., Savinainen-Makkonen, T., Saaristo-Helin, K., & Martikainen, A-L. *Finnish: Multilingual children's speech development*. Charles Sturt University, Australia. <https://www.csu.edu.au/research/multilingual-speech/languages>
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