



Multilingual Children's Speech Development

DUTCH (FLEMISH)

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Dutch (Flemish) Authors

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Dutch (Flemish)

- **Commonly spoken in**

- Northern part of Belgium (Flanders)
- Southern regions in the Netherlands (Zealandic Flanders and the Brabantine area)

- **Dialects and variants**

- West Flemish
- East Flemish
- Brabantian
- Limburgish

- **Writing**

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

Dutch (Flemish) map

- Official / major language
- Other regions



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Dutch (Flemish) Speech Components

- **Consonants (23):** /p, b, t, d, k, g, ʔ, m, n, ŋ, ŋ, r, R, f, v, s, z, ʃ, ʒ, ʎ, ʎ, h, ʊ, j, l, w/
- **Consonant clusters (many)**
- **Vowels (13 + 3 diphthongs):** /i, y, e, ø, a, o, u, ɪ, ʏ, ε, α, ɔ, ə/ + /ɛi, œy, au/
- **Tones (0):** None
- **Phonotactic restrictions:**
 - Flemish syllables can start with a vowel, a consonant, a consonant cluster
 - The schwa is prohibited syllable-initially in lexical words
 - The rhyme is an obligatory syllable constituent in Flemish
- **Prosody:** Flemish is a stress-timed language with variable stress

Dutch (Flemish)

Age of Acquisition

- **Consonants**

- 75% of the children have acquired all consonants at 4 years of age, except /s/ and /l/ (Stes, 1997)

- **Consonant clusters**

- 4-5 years of age (Stes, 1997)

- **Vowels**

- 90% of the children have acquired all vowels at 3 years of age (Stes, 1997)

- **Tones**

- Not applicable

Dutch (Flemish) Speech Development

- **Percentage correct**
 - No studies for Flemish
 - Dutch: PCC-R and PVC respectively 97.6% and 98.6% at 6;11 years
- **Intelligibility**
 - No studies with ICS*
- **Common phonological patterns**
 - Cluster reduction, final consonant deletion, weak syllable deletion, reduplication, (de)voicing, fronting, gliding, and stopping (Beers, 1995)

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

Dutch (Flemish) Children with Speech Sound Disorders

■ Also called

- Spraakstoornis 'speech sound disorder',
- Fonologische stoornis 'phonological disorder',
- Articulatiestoornis 'articulation disorder',
- Apraxie bij kinderen 'childhood apraxia of speech',
- Dysartrie 'dysarthria'

■ Research has focused on

- Prevalence, assessment, and interventions in children with acquired brain injury, dysarthria, speech apraxia, hearing loss, cleft lip and palate

■ Studies (examples)

- Articulation and consonant error patterns between Flemish deaf children using cochlear implants and deaf children using hearing aids (Baudonck et al., 2010)
- Speech sound disorders in children with cleft lip and palate (Alighieri et al., 2020; 2021, Van Lierde et al., 2004)

Dutch (Flemish) Speech Assessments

- Plaatjesbenoemtaak [Flemish Picture Naming Task]
(Van Borsel, 1996)
- Antwerps Fonologische Processenonderzoek [Antwerp Phonological Processes Analysis]
(Elen et al., 2005)
- SpraakKlankOnderzoek - Basisonderzoek (SKO-Basis) [Speech Sound Assessment]
(SKO, 2020)
- Logo-Art Articulatieonderzoek [Logo-Art articulation assessment]
(Baarda et al., 2001)

Dutch (Flemish) Speech Interventions

- Fonetische articulatietherapie [Phonetic Articulation Therapy] (Van Riper, 1972)
- Metaphon [Metaphon Approach] (Dean et al., 1995)
- Cyclische therapie volgens Hodson & Paden [Cycles Approach] (Hodson & Paden, 1991)
- PROMPT [Prompts for Reconstructing Oral Muscular Phonetic Targets] (Hayden, 2003)
- Dyspraxieprogramma [Dyspraxia Program] (Erlings-van Deurse et al., 1993)
- Logo-Art [Logo-Art treatment for specific speech sounds] (Baarda et al., 2001)
- Kaatje Klank (Van Severen & Feryn, 2016)
- FonoLog (Dijkstra-Buitendijk & Van den Engel-Hoek, 2019)

Reference

Book chapter

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Presentation

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<https://www.csu.edu.au/research/multilingual-speech/languages>
 - Sharynne McLeod and Helen L. Blake, Charles Sturt University, Australia