



# Multilingual Children's Speech Development

# ICELANDIC

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# Icelandic Author

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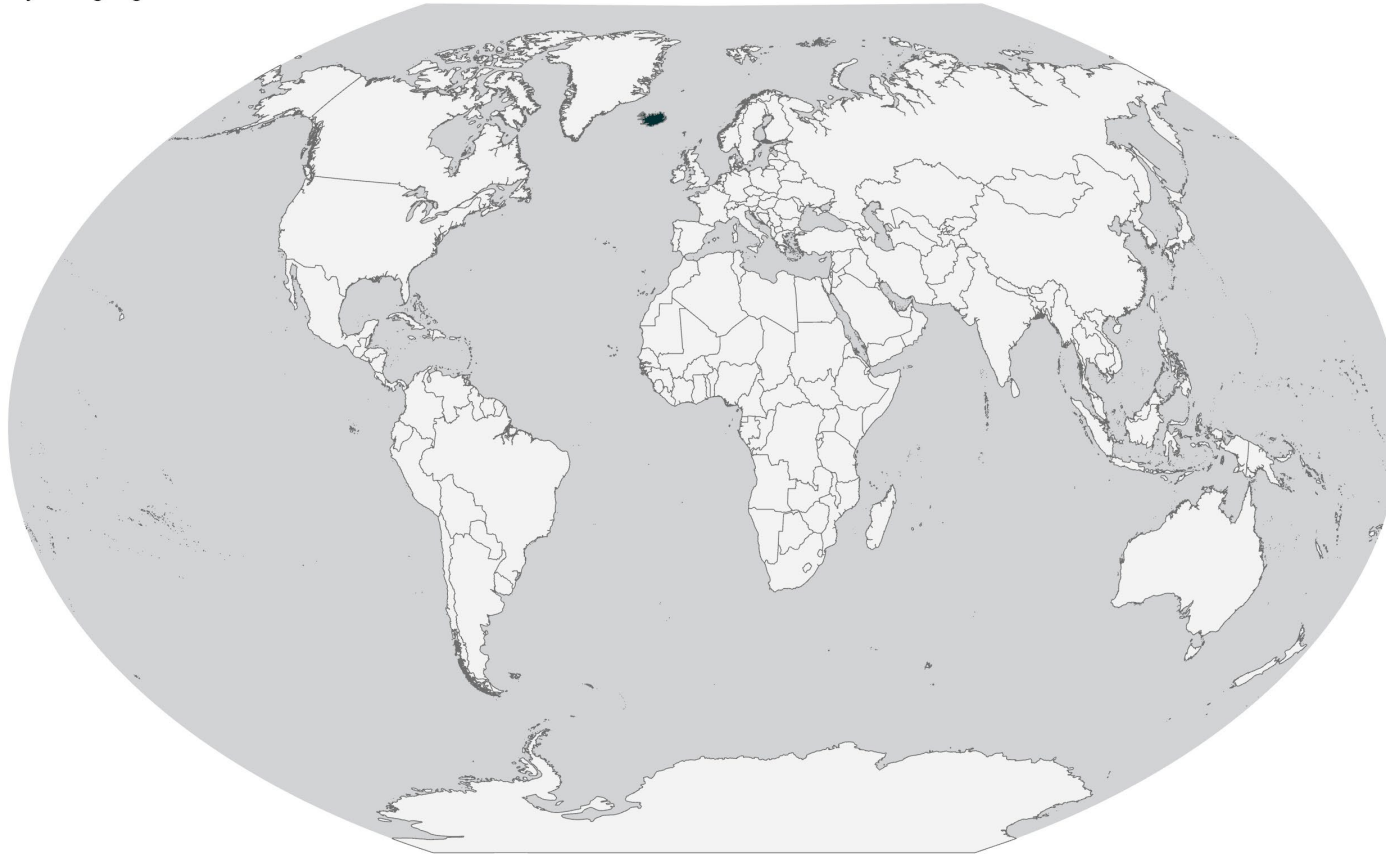


# Icelandic

- **Commonly spoken in**
  - Iceland
- **Dialects and variants**
  - Only minor dialects throughout Iceland.
  - Dialects are limited to slight changes in pronunciation, none are contrastive.
- **Writing**
  - Left to right. Latin alphabet (Roman script).

# Icelandic Map

■ Official / major language



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# Icelandic Speech Components

- **Consonants (25):** /p<sup>h</sup>, p, t<sup>h</sup>, t, c<sup>h</sup>, c, k<sup>h</sup>, k, m, n̥, n, θ, ð, f, v, s, ç, j, x, ʏ, h, l̥, l, r̥, r/
- **Consonant clusters (>500, when adding all positions):** e.g., /p<sup>h</sup>r, kr, sp, str, ðr, pj, tl/
- **Vowels (8+5):** monophthongs /a, ε, ɪ, i, ɔ, ʏ, u, œ/; diphthongs /ai, ei, ou, œy, au/.
- **Tones (0):** None
- **Phonotactic restrictions:** C<sub>0-4</sub>VC<sub>0-5</sub>
- **Prosody:** Icelandic sentences (including questions) typically have falling intonation. Icelandic is a trochaic language: the main lexical stress usually falls on the first syllable.

# Icelandic

## Age of Acquisition

### ■ Consonants

- 2;6-2;11 years of age: /p<sup>h</sup>, p, t, k, c, f, v, j, h, m, n, l/
  - 3;0-3;11 years of age: /t<sup>h</sup>, k<sup>h</sup>, c<sup>h</sup>, ç, ð, l̥/
  - 4;0-4;11 years of age: /θ, s, x, γ, r, r̥/
  - ≥7;6 years of age: /n/
- (Másdóttir et al., 2021)

### ■ Consonant clusters (examples)

- 2;6-2;11 years of age: /pl-, -tl-, -nt-, -hp-, -ht-, -hk-, -hpl-, -tl̥-, -mp/, to 6;0-6;11 years of age: /-ðr-/
- (Másdóttir et al., 2021)

### ■ Vowels

- To date there is no study on children's acquisition of vowels in Icelandic.

### ■ Tones

- Not applicable.

# Icelandic Speech Development

## ■ Percentage of consonant correct (PCC)

- 2;6-2;11 years of age: 73.1%
  - 3;0-3;11 years of age: 83.2%
  - 4;0-4;11 years of age: 92.2%
  - 5;0-5;11 years of age: 95.7%
  - 6;0-6;11 years of age: 98.5%
  - 7;0-7;11 years of age: 98.6%
- (Másdóttir et al., 2021)

## ■ Intelligibility

- No studies on ICS\* available for Icelandic, however, preliminary data (M.Sc. theses) demonstrated mod-high, positive and significant correlation ( $r=0.50-0.70$ ) between ICS (Icelandic) and PM's test of SSD (Hauksdóttir, 2014; Vigfúsdóttir, 2016).

## ■ Common phonological patterns

- Dentalization, interdentalization, cluster reduction, debuccalization, voicing of voiceless sonorants (/n/ → [n]), metathesis.

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

# Icelandic Children with Speech Sound Disorders

## ■ Also called

- *Málhljóðaröskun* ‘speech sound disorders’.
- *Framburðarfrávik* ‘articulation disorders’.
- *Hljóðkerfisfrávik* ‘phonological disorders’.
- *Verkstol hjá börnum* ‘childhood apraxia of speech’.

## ■ Research has focused on

- Speech sound/phonological development and disorders.
- Speech sound/phonological assessment.

## ■ Studies (examples)

- Másdóttir, T., McLeod, S., & Crowe, K. (2021). Icelandic children’s acquisition of consonants and consonant clusters. *Journal of Speech, Language, and Hearing Research*, 64, 1490–1502. [https://doi.org/10.1044/2021\\_JSLHR-20-00463](https://doi.org/10.1044/2021_JSLHR-20-00463)
- Másdóttir, Þ. (2019). Hljóðþróun íslenskra barna á aldrinum tveggja til átta ára [Speech sound acquisition of children aged two to eight years]. *Netla - Vef tímarit um uppeldi og menntun*. <https://doi.org/10.24270/netla.2019.11>

# Icelandic Speech Assessments

- **Málhljóðapróf ÞM** [ÞM's Speech Sound Test] (Thora Másdóttir, 2014).
- **Kvarðinn: Skiljanleiki tals í samhengi** [Intelligibility in Context Scale; Icelandic version].  
– (McLeod et al., 2012)

# Icelandic Speech Interventions

- There are no researched SSD intervention programs specifically for Icelandic.
- Speech interventions frequently used with Icelandic-speaking children with SSD include: sound/word repetitions, gestures for speech sounds, position-based training (single sounds), phonetic/phonemic awareness, and eclectic methods (e.g., minimal pairs and sound/word repetitions, or cycles and gestures for speech sounds) (Þorleifsdóttir, 2020).

# Reference

## Book chapter

- Másdóttir, T. (forthcoming). Icelandic speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*. Oxford University Press.

## Presentation

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  - Helen L. Blake, University of Technology Sydney, Australia