



Persian/Farsi Children's Speech Development

PERSIAN/FARSI

Multilingual Children's Speech Development

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Persian

■ Commonly spoken in

- Iran, Tajikistan, and Afghanistan
- Also spoken in India, Bahrain, and the United Arab Emirates and among migrants in Europe and the United States

■ Dialects and variants

- Known as Persian or Farsi (in Iran), Tajiki (in Tajikistan), and Dari (in Afghanistan) with numerous local dialects and/or accents
- In Iran, local varieties include Tehrani, Kermani, Isfahani, Shirazi, and Kashani

■ Writing

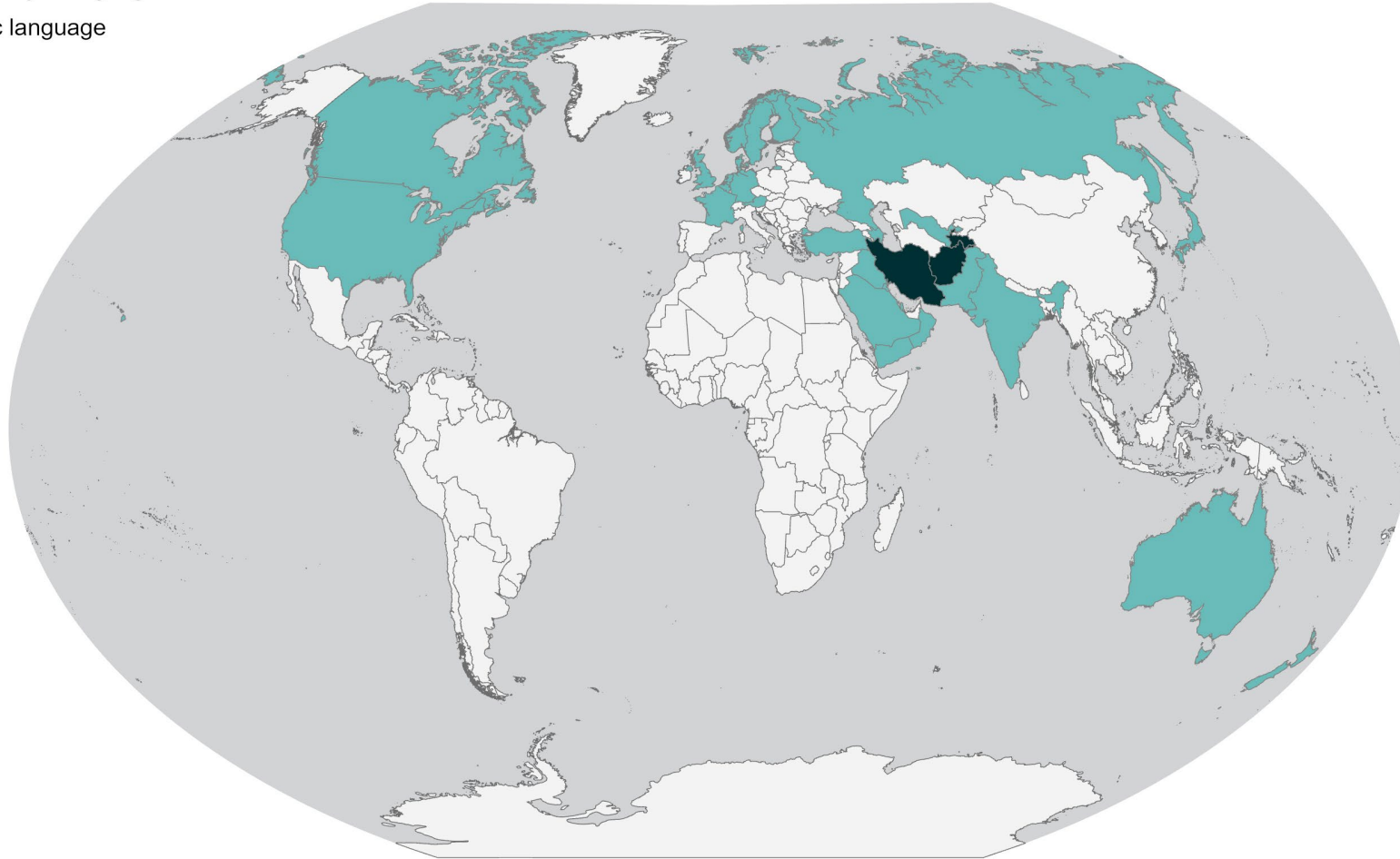
- Right to left using Arabic script
- Contains four extra Persian-specific letters, i.e., پ، ژ، گ، چ.

ما بسیار خوشحالیم که به زبان فارسی صحبت می کنیم.

We are so happy to speak in Persian.

Persian Map

- Official / major language
- Diasporic language



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Persian Speech Components

- **Consonants (23):** /p, b, t, d, k, g, ʔ, m, n, r, f, v, s, z, ʃ, ʒ, x, h, j, l, tʃ, dʒ/
- **Consonant clusters (many):** maximum 2 consonant clusters and in syllable final only
 - plosive-plosive, plosive-fricative, fricative-plosive, nasal clusters, affricate clusters, and approximant clusters
 - e.g., /km/ in /hokm/ ‘order’, /ff/ in /kæff/ ‘shoes’, /pudr/ [pūdr] ‘powder’
- **Vowels (6):** Short: /e, æ, o/ Long: /i, a, u/
 - Diphthongs are generally not phonemic, the most attested ones are [ow] and [ej]
- **Tones:** Persian does not generally use tones to differentiate meaning; however, some frequently used words have different meanings when different ‘tones’ are applied
e.g., /mā/ ‘We’, /má/ ‘Do you mean us?’, /mà/ ‘We can’t, definitely’
- **Phonotactic restrictions:** $C_{(1)}VC_{(0-2)}$
- **Prosody:** Syllable-timed language, where word stress is the result of pitch and intensity variations
 - Stress is fixed and is recognized by the type of lexical category, e.g., nouns, adjectives, adverbs, and simple verbs have stress on their rightmost syllable

Persian

Age of Acquisition

■ Consonants

- Early /p, b, t, d, k, g, ʔ, m, n, f, ʃ, x, h, l, j/
- Middle /G, v, z, ʒ, tʃ, r/
- Late /s, dʒ/

■ Consonant clusters

- 75% of children aged 3;0 were able to produce /xl, bz, rs, xm/
- Clusters acquired between 3;0 to 3;6 included /xt, sk, sb, ʃk, st, ft, st, ʃt, ks, bz, ff, ng, ʃm/
- Clusters acquired between 3;7 to 4;0 included /rs, rm, rf, rg, rd, rx, tr/

■ Vowels

- Assumed to be completed by 3;0

■ Tones

- Persian does not generally use tones to differentiate meaning

Persian Speech Development

- **Percentage correct according to Zarifian & Fotuhi, 2020**

- 36 to 72 months: PCC - 92.55 %
 girls PVC - 99.43%
 PPC - 94.81%
- 36 to 72 months: PCC - 90.86%
 boys PVC - 99.37%
 PPC - 93.82%

- **Intelligibility**

- 90.33% at 3;0-3;05
- 95.78% at 3;6-3;11
- 98.60% at 4;0-4;05
- 99.66% at 4;06-4;11
(Vaziri et al., 2017)

- **Common phonological patterns**

- Final consonant deletion, cluster reduction, fronting, stopping, devoicing/voicing, gliding, nasalization, assimilation, and metathesis

Persian Children with Speech Sound Disorders

■ Also called

- اختلال صداهاى گفتار → speech sound disorder
- آپراکسى گفتار دوران كودكى → childhood apraxia of speech
- ديزآرتري → dysarthria

■ Research has focused on

- Prevalence, assessment, interventions
- Children with SSD, cleft lip and palate (CLP), and hearing loss

■ Studies

- Children with SSD displayed differences in the location, type, and direction of voicing/devoicing, assimilation, and harmony processes (Shooshtaryzadeh, 2017, 2018, 2020)
- Children with repaired CLP had a greater voice onset time and displayed a lower vowel space that was closer to the lips than TD children (Abolhasanizadeh & Izadi Bidani, 2020)

Persian Speech Assessments

- Persian Version of the Intelligibility in Context Scale (Aghaz, et al., 2022)
- Single-word Quick Repetition Test for Speech Sound Production in Persian-speaking Children (Haresabadi, et al., 2020)
- Auditory Test of Phonological Awareness Skills (Arani Kashani, et al., 2009)
- Persian Version of the Diagnostic Evaluation Articulation and Phonology (Zarifian, 2014)

Persian Speech Interventions

- Iranian speech-language pathologists use interventions designed for the treatment of speech sound disorders in other languages, such as minimal pairs, traditional articulation therapy, and core vocabulary. Efficiency of some of speech interventions evaluated in some research projects as follow:
 - Auditory focus stimulation (Derakhshandeh et al., 2016)
 - Multiple phoneme approach (Baghban et al., 2021)
 - Intervention by utilizing nonwords (Mohseni & Shirazi, 2015)
 - Core Vocabulary treatment (Faryabi et al., 2017, Fekar & Mehri, 2019)
 - Telepractice Parent Training of Enhanced Milieu Teaching With Phonological Emphasis (EMT+PE) For Persian-Speaking Toddlers With Nonsyndromic Cleft Palate (Tahmasebi et al.2024)

Reference

Book chapter

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- Zarifian, T., Blake, H. L., Shooshtaryzadeh, F., Fotuhi, M., Kazemi, Y., & Modarresi, Y. (2024). *Persian: Multilingual children's speech development*. Charles Sturt University, Australia.

<https://www.csu.edu.au/research/multilingual-speech/languages>

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