Assessing Speech Disorders in Russian Speaking Children

Andrey Rublev

Background

• While the majority of America’s exclusively speak English, there are currently over 350 languages other than English spoken in homes across the U.S (United States Census Bureau, 2017); one of which is Russian.

Percent of Russian Speaking Population (2.9 million)

- Under 5 years: 13%
- 5-17 years: 12%
- 18-24: 15%
- 25-34: 17%
- 35-44: 15%
- 45-54: 11%
- 55-64: 13%
- 65-74: 12%
- 75+: 13%

• Speech-language pathologists (SLPs) that work in various settings are likely to encounter Russian-speaking children throughout their career.

Current Russian Assessments

• The Russian Articulation Screener created by Elleseff (2014) was designed to analyze potential phonological errors in Russian-speaking children 2.0 and older.

• The screener contains 72 words that target all Russian phonemes in initial, medial, and final word position in addition to a select list of consonant clusters. All target words are in Russian and are accompanied by an image to serve as a visual aid for each word.

Limitations of the Russian Articulation Screener

• No specification of target word selection criteria.
• Cannot be assumed that words selected are appropriate for the population intended (20+) as some words may be too advanced/difficult for younger children.

• Visual stimuli provided contains a poor representation of the target word, making it difficult to know if the participant would be able to identify it independently.

• Several images show the plural form while the target word indicates the singular form.

• The phonemes targeted appear on the page with the image, which may confuse the child and/or prolong the administration time if directly focused on.

• Numerous grammatical mistakes are also prevalent.

Similarities and Differences Between English and Russian

- Russian consists of 31 phonemes; 21 consonants and 10 vowels.

- Russian and English share many of the same phonemes, including consonants (p, b, t, d, k, g, m, n, s, z, j, l, f, v, r, s, z, j, l) and vowels (a, e, i, o, u).

• There are several phonemes that differ between the two languages:

  - English containing seven consonants (n, t, θ, s, z, j, l) that a Russian speaker will lack due to differences in the phonological system of the language (Kester, 2014).

  - In Russian, a trilled /r/ and a phoneme similar to the English voiced retroflex fricative (ʔ) are not present in English.

  - While present in English, there are several consonants that require additional palatalization in order to be accurately pronounced in Russian, including (m, n, p, b, l, f, v, r, s, z, j, l, i, t, n, and ɋ).

  - Russian contains 10 vowel phonemes (a, o, e, i, u, j, j, i, ja, ɢ) compared to 12 vowel phonemes in English (a, e, i, o, u, l, ɋ, r, s, z, j, ɋ).

  - In Russian, the vowel /i/ does not have a direct comparison to an English vowel due to the nature of pronunciation of the phoneme and therefore cannot be produced accurately by a native English speaker.

  - Consonant clusters in Russian range from 2-4 consonants in length, allowing for more diverse combinations and a wider span of consonant clusters (four) in syllable-initial (onset) clusters compared to the maximum of three that are allowed in English.

• The RRAT provides a standardized informal assessment for the population intended (2+) as some words may be too advanced/difficult for younger children.

• The RRAT was created to serve as a quick, effective, and informative informal assessment; testing each phoneme once across all 42 words in each of the word positions (initial, medial, and final).

• Each target word is accompanied by visual presentation of that item.

Conclusions and Future Directions

• When assessing bilingual children, it is imperative for an SLP to determine the distinction between a speech disorder and a language difference by assessing the child in their L1 and L2 since true speech/language based deficits will be prominent in both languages.

• The RRAT provides a standardized informal assessment analyzing monolingual (Russian) or bilingual (English/ Russian) school aged children with potential articulation impairments.

• While the number of participants is small, the RRAT shows promising results by serving as an efficient and reliable tool to use either in stand alone or in combination with other speech assessments when assessing school-aged children with potential articulation disorders.

• Continued administration on monolingual or bilingual Russian speaking school aged children is recommended to solidify significance of results.

References


- RussianSyllableOnsets.pdf.


- Rublev Russian Articulation Test (RRAT)