



# **ASSESSMENT OF THE PHONOLOGICAL SKILLS IN CHILDREN**

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# RESEARCH AIM AND METHODS


**The research aim** is to reveal characteristics of assessment of phonological skills (phonological awareness, phonological memory, rapid automatized naming) at the national and international levels.

**Methods.** Theoretical analysis of the concept was performed. The analysis was carried out in compliance with the following sequence:

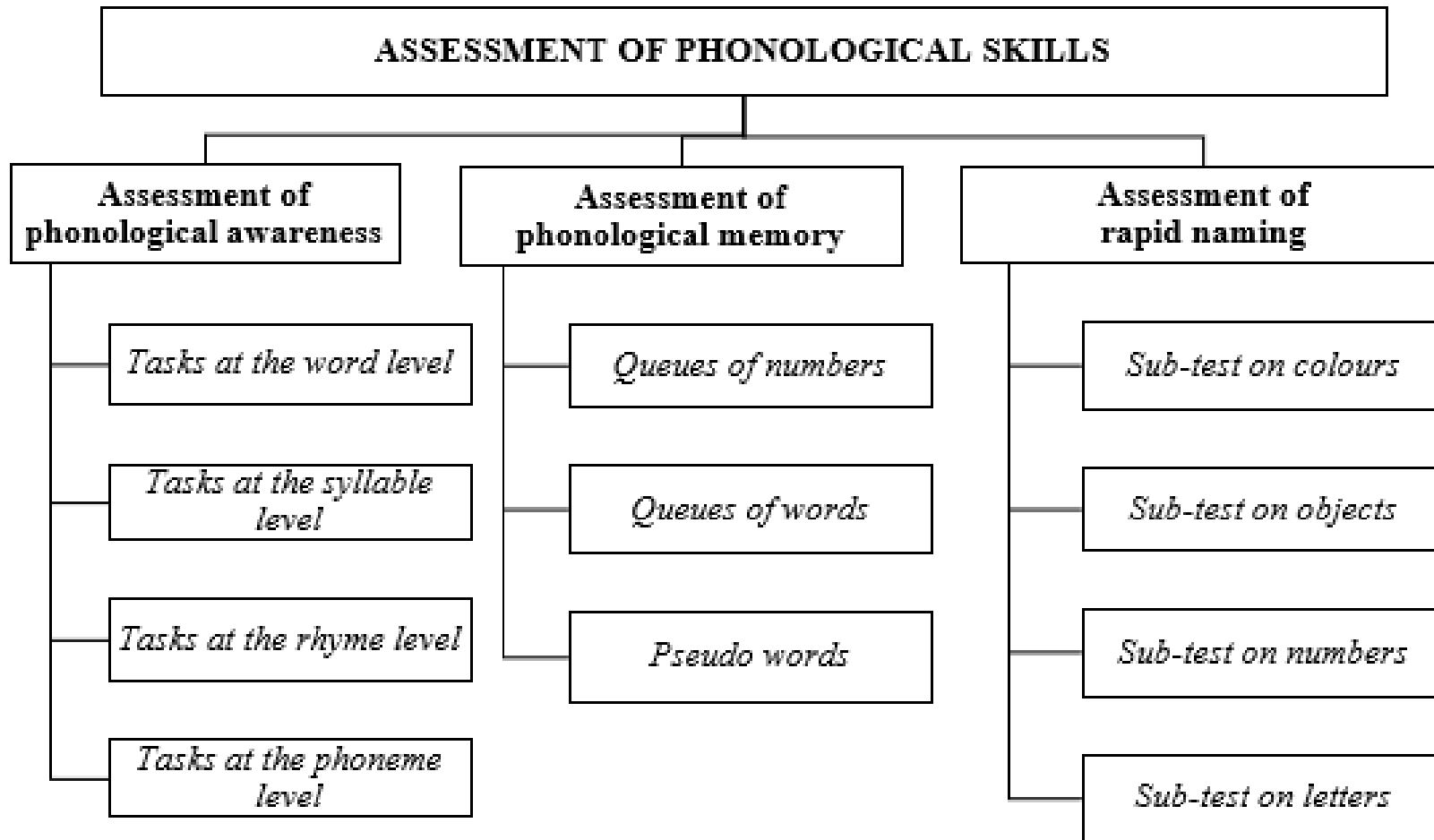
- The object of analysis (phonological skills) was set;
  - Structural components of the concept (phonological awareness, phonological memory, rapid naming) were pointed out;
  - The assessment features of the said components were identified.
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# SHORT INTRODUCTION

- Referring to the data of scientific literature and investigations, *phonological skills are major factors that determine different levels of children's reading and help to predict reading skills-to-be*. Therefore, it is very important to assess children's phonological skills properly and as early as possible.
  - There are many research works on phonological skills in the international level. This is also applicable to instruments of assessment of phonological skills. Still, there is little scientific literature and conducted empirical research on this topic in Lithuania.
  - Also, there is lack of instruments for assessment of phonological skills which are adapted to the language, reliable and valid. Because of this reason, the conducted theoretical analysis is expected to be significant for the development of knowledge on speech and language therapy at both scientific and practical levels.
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# RESULTS (1/5)



**Fig. 1** Structure and components of assessment of phonological skills




## RESULTS (2/5)

**Assessment of phonological awareness.** Effective assessment of phonological awareness must *cover all levels (word, syllable, rhyme, phoneme) of phonological awareness* (Lane, Pullen, Eisele, Jordan, 2002; Anthony, Lonigan, 2004; Cassano, Steiner, 2016) .

In international context, there are many available instruments for assessment of children's phonological awareness skills. Standardized tests are quite widely used. For example, a standardised test *Phonological Awareness Test-2* (PAT-2; Robertson, Salter, 2007) intended for assessment of 5–9-year-old children's phonological awareness skills (Cassano et al., 2016, p. 6). The tasks of the said test are designed to assess all four levels of phonological awareness skills.

In Lithuania, more attention is focused on tasks on phonemic level (Kairienė, Daniutė, 2015). It should be emphasized that in Lithuanian practice of language and speech therapy, it is unusual to assess skills of all four levels of phonological awareness.






## RESULTS (3/5)

**Assessment of phonological memory.** Melby-Lervåg et al. (2012), Park et al. (2014) point out that usually phonological memory is assessed *by repeating queues of numbers, words and pseudo words*. The assessment by *queues of words* is criticized because familiar words are well established in long-term memory and supported by it (Pickering, 2006, p. 245, 246). Therefore, capacity of phonological memory is used less. Repetition of *queues of numbers* is more accurate method of assessment of phonological memory because richness of the meaning of number names is much lesser than of words (p. 243).

The most precise assessment of the capacity of the phonological memory is by applying the test of repetition of *pseudo words*. Such tests are quite broadly used at the international level. It should be mentioned a standardised test *Children's Test of Nonword Repetition* (CN REP; Gathercole, Baddeley, 1996, cit. Archibald, 2008, p. 22). At the national scale, a Lithuanian *Test of Repetition of Pseudo Words* is applied (Krivickaitė, 2016), but it has been designed to test children's phono-tactic skills.






## RESULTS (4/5)

**Assessment of rapid naming.** One of the simplest and often used methods for assessment of early literacy and predicting reading skills-to-be is the assessment of rapid naming (Norton, 2020, p. 25). It is performed while *naming colours, objects, numbers and letters as rapidly and precisely as possible* (Arnell et al., 2009; Shtereva, 2013).

In the international context, sub-tests on rapid naming are included in tests of a larger scope and standardised *Rapid Automated Naming-Rapid Alternating Stimulus Tests* (RAN-RAS; Wolf, Denckla, 2005, cit. Norton et al., 2012, p. 434) are used. There is no adapted standardised test for rapid naming in Lithuania. However, a scale of rapid naming is included in the *Assessment of Child's Maturity for School* (Gintilienė et al., 2015).






## RESULTS (5/5)

A standardised test for assessment of all three phonological skills, *The Comprehensive Test of Phonological Processing, Second Edition (CTOPP-2)* (Wagner, Torgesen, Rashotte, Pearson, 2013, cit. Tennant, 2014, p. 678), is popular at the international scale.

It should be mentioned that there is no separate test for assessment of phonological skills in Lithuania, but assessment of phonological skills (phonological awareness, rapid naming, phonological memory) is included in the *Questionnaire for Dyslexia Risk* (Labanienė, Gedutienė, Gintilienė, 2019, p. 62).


Also, it can be found separate Lithuanian tests (for assessment of some phonological skills) prepared by single speech and language therapists.







# CONCLUSION

1. There is no doubt that each phonological skill can be assessed separately, whereas they are not considered as an indivisible construct. Assessment of phonological skills based on scientific research and used in the international context includes:
    - *assessment of phonological awareness*, encompassing all four levels of skills (word, syllable, rhyme, phoneme);
    - *assessment of phonological memory*, when repeating queues of numbers, words and pseudo words;
    - *assessment of rapid naming*, when naming visual stimuli (colours, objects, numbers and letters) as rapidly and precisely as possible.
  2. Foreign speech and language therapists have possibilities to use various tests intended for assessment of both single and all three phonological skills at once. The conducted theoretical analysis showed the lack of instruments and limitedness of practitioners' capabilities for assessment of phonological skills in the national level.
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