

KaLaKe:

Developing and norming a set of language tests for multilingual children

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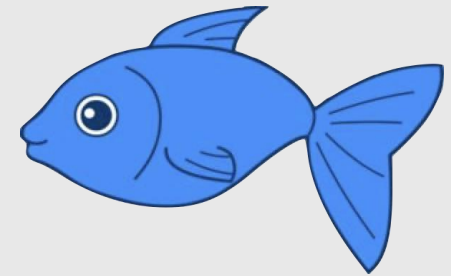
Institute of Education &

Institute of Estonian and General Linguistics

19 April 2024, Zoom

Eesti Rakenduslingvistika Ühing (ERÜ) kevadkonverents

'Exploring Language Diversity and Variation'



Roadmap of Talk

- Background:
 - principles of bilingual language assessment
 - bilingual children in Estonia
- Development of the KaLaKe toolkit
- The tasks
 - Nonword Repetition Task
 - Sentence Repetition Task
 - Cross-Linguistic Lexical Task



Background: bilingual language assessment

- Multilingual and monolingual development
 - similar and different
- Reduced input quantity in each language of multilinguals, but also different quality of input
- Previously: bilingualism was seen as a risk in and of itself
 - Language skills and identity
 - Advice to parents
 - Support for children

Bilingual language assessment

- Research in child language acquisition
 - Bias toward a small number of languages, especially Indo-European languages (cf Kidd & Garcia 2022)
 - Bias toward monolingual children (Genessee 2022)
- Assessment instruments usually normed on monolingual populations (Freeman & Schroeder 2022)
- Risky to compare bilingual development to a monolingual baseline
 - Complex skills and experience needed to adapt assessment based on monolinguals to multilingual children

Bilingual language assessment

- Bilingual children are more heterogenous:
 - Socio-demographic background
 - Language exposure: age, input quantity and quality
 - Language skills
- Assessment of bilingual children's language
 - Ideally based on the child's skills in both languages
 - Instruments must be normed on bilingual populations
 - Appropriate framing and description (De Lamo White & Jin 2011)

Background: Bilingual children in Estonia

- Increase in bilingual children in Estonia, incl. pre-schools
 - Roughly 68 thousand children in pre-schools (4,000 in language immersion pre-school or class, 7,500 in Russian-medium schools)
- Typically developing children acquire enough L2 Estonian at pre-school to continue and join their L1 peers in first grade.
- Inclusive education:
 - aims to guarantee access to a meaningful, high-quality education to all students, including those with native languages other than Estonian – at a school close to home and together with peers from the same age group.*
 - Support measures for students with special educational needs (2019)
- Law in prep. designating bilinguals as students with special needs:
 - bound to dramatically increase SLT workload
 - Sharpens need to distinguish bw L2 learning difficulties arising from input quantity & quality (need more language teaching) vs developmental disorder (need SLT)



DLD in Estonia

- **Developmental Language Disorder (DLD):**
 - Children not acquiring language as expected, in the absence of other known biomedical conditions
 - Long-term, systemic language delay
 - Shown to be associated with impaired language processing skills (Tomas & Vissers, 2019)
 - Misunderstanding that children with DLD cannot learn L2
- Standardised tests for identifying DLD among children whose first language is Estonian (Padrik et al. 2013, Hallap et al. 2019)

DLD in Estonia

- **Bilinguals:**

- Complex assessment, based on a combination of methods
- Subjective and difficult without tools (depends greatly on experience of SLT)

- **Problematic:**

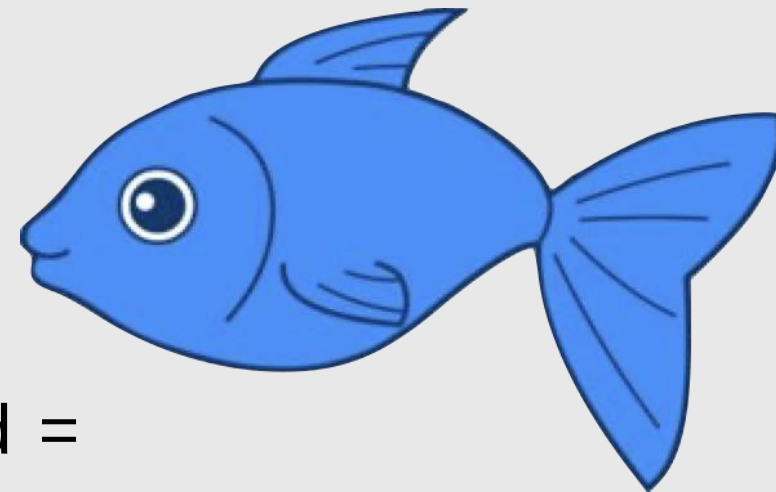
- mis-applied norms
- assessment based on child's second (weaker) language

- **Speech and Language practitioners often lack knowledge and skills for assessment and intervention with bilingual children**

- **Risk of misdiagnosis**

- in a pilot study for SRT, *nearly half the bilingual DLD group* (based on SLT opinions) *were over-diagnosed* (Padrik, Vihman & Fil, 2022)
- Examples of underdiagnoses as well (children in TD sample were actually DLD))

KaLaKe

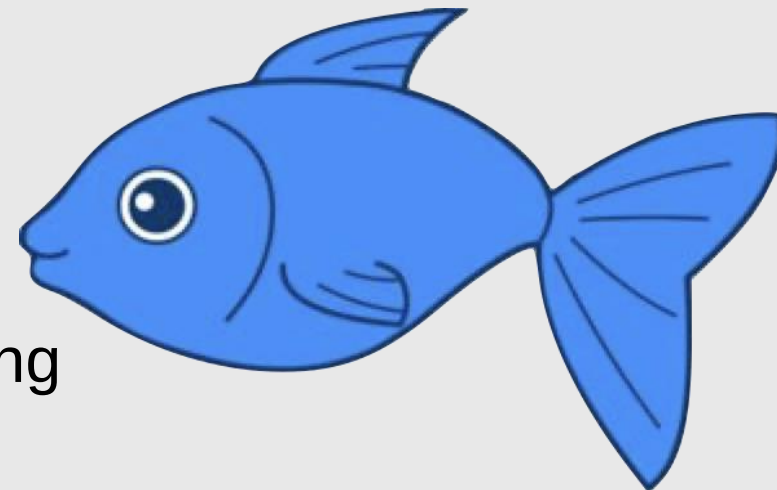


- **Kakskeelsete Laste Keeleoskuse** hindamisvahend =
Bilingual Children's Language-Skills assessment instrument
- *Kalake* = "fishie"
- 'Development of a diagnostic tool for assessing bilingual children's language skills', PI: Marika Padrik (co-I Virve Vihman; Adele Vaks, project coordinator)
 - Funded by the Estonian Education and Youth Board (HARNO, 2021-2024)
- Based on tests developed for bilingual children, adapted for Estonian
 - LITMUS (Language Impairment in a Multilingual Society) network
 - www.bi-sli.org
 - Armon-Lotem et al. (2015); see also www.litmus-srep.info

KaLaKe

- Important aims:

- Can be administered easily in pre-school setting
- Does not rely on complex linguistic analysis
- Appropriate level for typically developing bilingual children
- Must identify DLD children as significantly different from TD



Repetition tasks

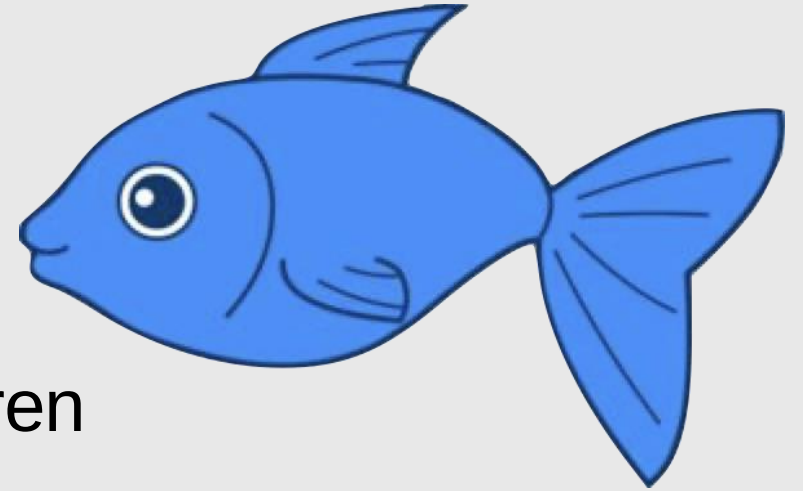
**Nonword
repetition
task (NWR)**

**Sentence
Repetition
Task (SRT)**

Vocabulary

**Crosslinguistic
Lexical Task (CLT)**

KaLaKe



- First version intended for pre-school children
 - Aged 5-6 years
- Will be available on the national Exam Information System (EIS)
- All three tests have been developed, piloted, modified
- Currently: norming the tests based on a larger sample
 - Monolingual and bilingual children
 - Test should distinguish between TD and DLD children in both groups

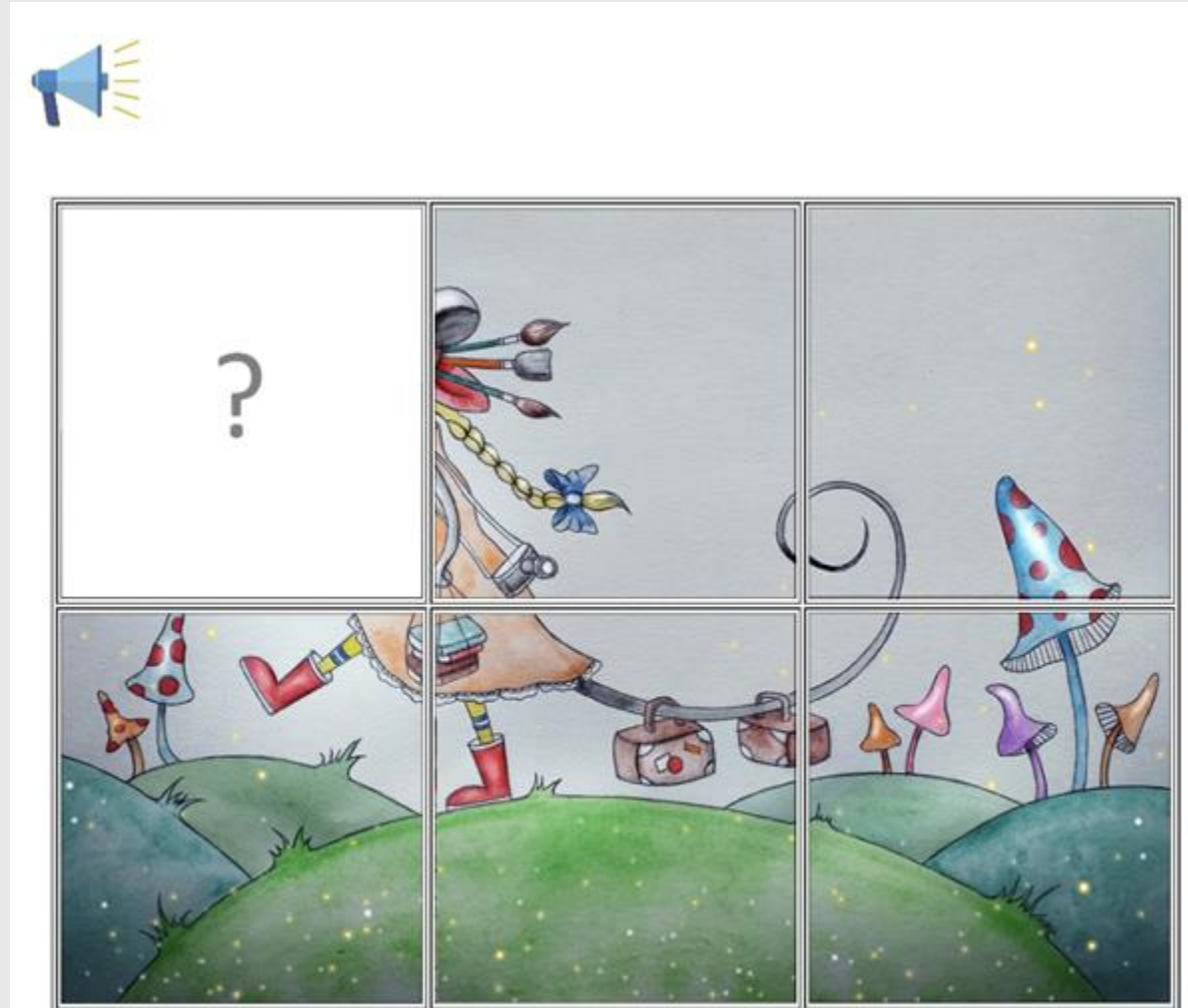


Repetition Tasks (Non-Word and Sentence)

- Target children's language processing skills
 - Taps into processing skills more than testing language knowledge (vocabulary, etc.) (Marinis & Armon-Lotem 2015)
- Available in around 30 languages
 - Thanks to the LITMUS network (<COST Action IS0804)
 - Children can be tested in their L1 in addition to Estonian
 - Importantly for Estonia: also developed in Russian

Non-Word Repetition Task

- Phonological representation
- Phonological memory
- Language-specific section
- (Universal section omitted)
- 36 words:
 - 12 x 2-syllable
 - 12 x 3-syllable
 - 12 x 4-syllable
- Gradually revealed pictures



Sentence Repetition Task



Sentence Repetition Task

- 2 practice sentences
- 30 sentences
 - 4-8 words per sentence, 10-15 syllables
 - 10 sentence types (grammatical structures)
- Sentence types which are challenging crosslinguistically, e.g.:
 - object questions (*whom?*), questions with complex objects (*which animal?*)
 - conditionals (*if... then...*)
 - subject and object relative clauses (*the teacher who...*)
- Sentence types challenging in Estonian, e.g.
 - impersonals (*mängitakse jalgpalli*),
 - possessives (*jänesel on valge saba*)
 - adjective-noun agreement (*suured sarved*)
 - translative case (*tahab saada kokaks*)



Crosslinguistic Lexical Tasks

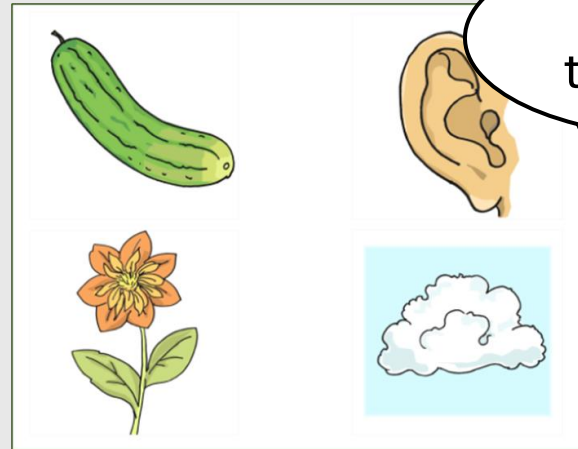
- 4 subtests x 30 words
 - Noun production and comprehension
 - Verb production and comprehension
- Picture bank of images, all by the same artist
 - © University of Warsaw
- Targets selected by surveying adults in 3 phases:
 - What would you name this in Estonian?
 - How old were you when you learned this word?
 - Linguistic properties: length, sound composition, origin, frequency of contact, argument structure

Crosslinguistic Lexical Tasks

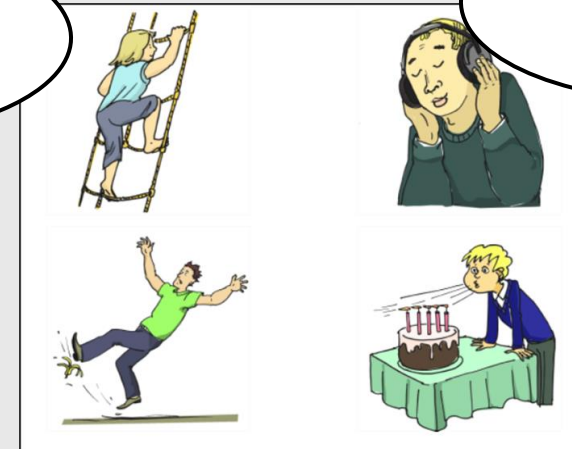
Nouns

Verbs

Comprehension

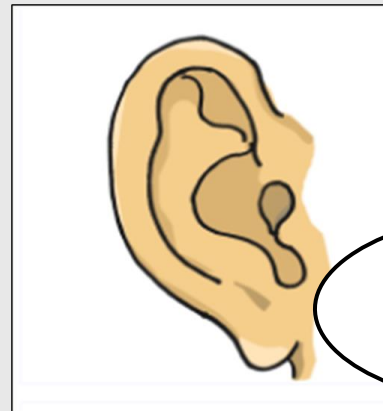


Where is
the cloud?

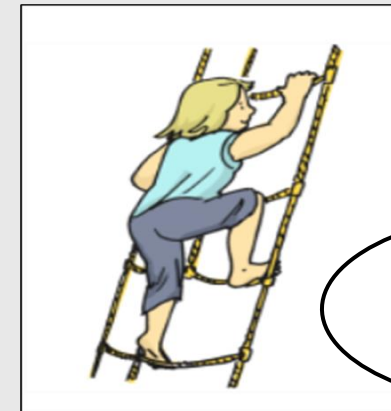


Who is
blowing?

Production

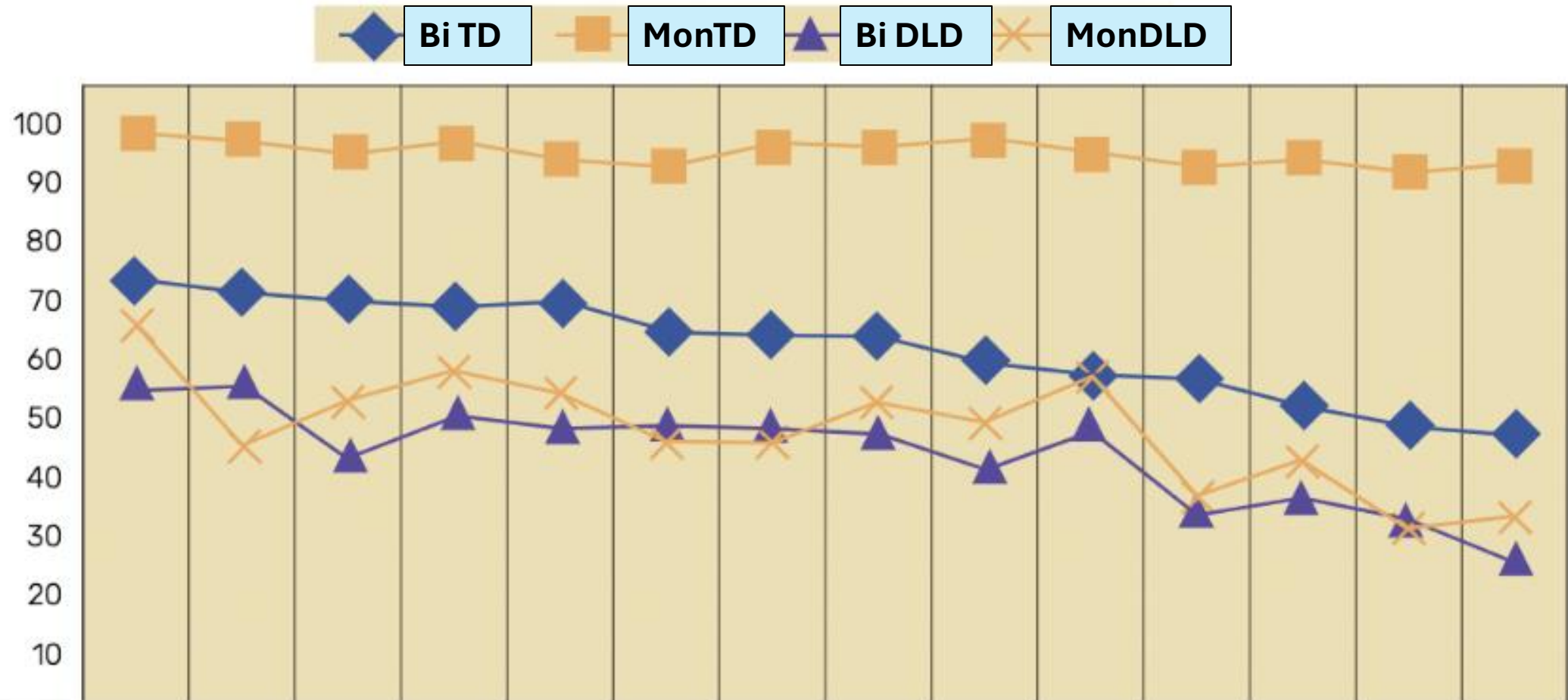


What is
that?



What is she
doing?

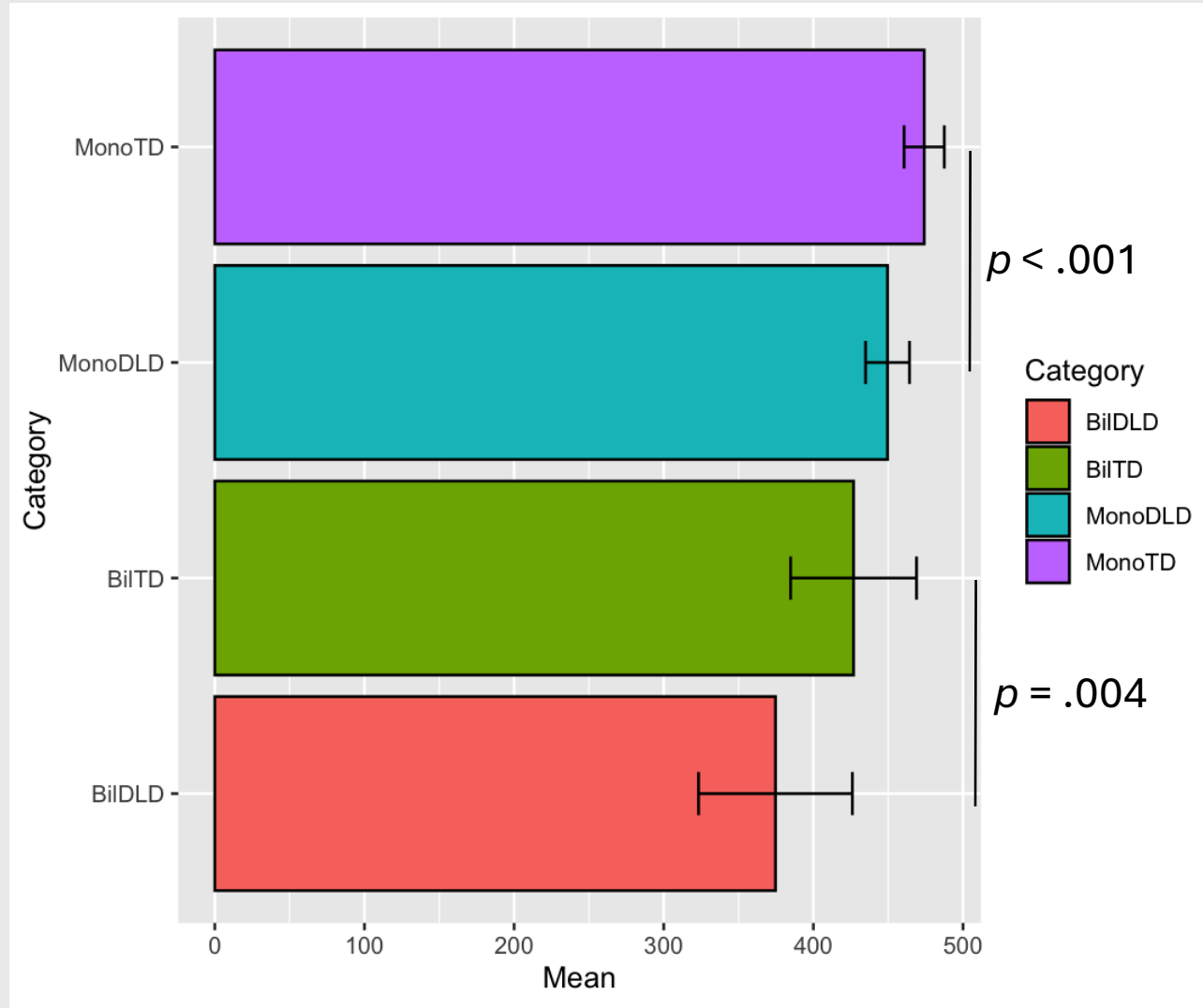
Differentiation of groups: SRT



KaLaKe pilot testing

- Pilot testing of the whole toolkit by MA students in 2023
- Pre-schools in Tartu, Võru, Valga, Keila
- Ethics approval (University of Tartu ethics committee)
- Participants: total 82
 - 30 monolingual TD
 - 15 monolingual DLD
 - 23 bilingual TD
 - 14 bilingual DLD
- Currently ongoing norming study with larger samples (2024)

Results of KaLaKe pilot testing (spring 2023)



Heartfelt thanks to...

- HARNO (Estonian Education & Youth Board) for funding the project and supporting the technical aspects
- Merit Hallap, who has also been part of the project's birth, launch, and development
- SLTs who have helped pilot the tests
- ...And all the students who have contributed and written MA theses on various stages of the project:

- Laura Grihin 2020
- Olga Fil 2021
- Katrin Pree 2021
- Reelika Voitk 2021
- Kristina German 2021
- Viktoria Tereštšuk 2022
- Annika Labent 2023
- Ere Tuunas, Hanna Marta Sirel 2023



HARIDUS- JA NOORTEAMET



Any questions?

Thanks for listening!
Aitäh!

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