

Background

- Vocabulary knowledge is a good predictor of **language proficiency** among L2 speakers across CEFR levels (A1 to C2) and reading comprehension (Milton, 2010; Laufer & Ravenhorst-Kalovski, 2010).
- Measuring vocabulary size offers profound insights into an individual's language capabilities in understanding and communication (Staehr, 2008).
- Vocabulary assessment tools for L2 speakers are valuable both for **scientific research** and **practical applications**.

LexTALE vocabulary test

- The original English test, **Lexical Test for Advanced Learners of English** (LexTALE, Lemhöfer and Broersma, 2012), was intended for advanced language learners.
- Subsequent variants of this test for other languages (e.g., LexTale-Esp for Spanish, LexIta for Italian, Lexize for Finnish) have shown that successful vocabulary tests can be developed for L2 learners at different proficiency levels (Izura et al. 2014, Amenta et al. 2021, Salmela et al. 2021).
- LexEst marks the **first** instance for a similar **quick vocabulary assessment tool in Estonian**.

Method

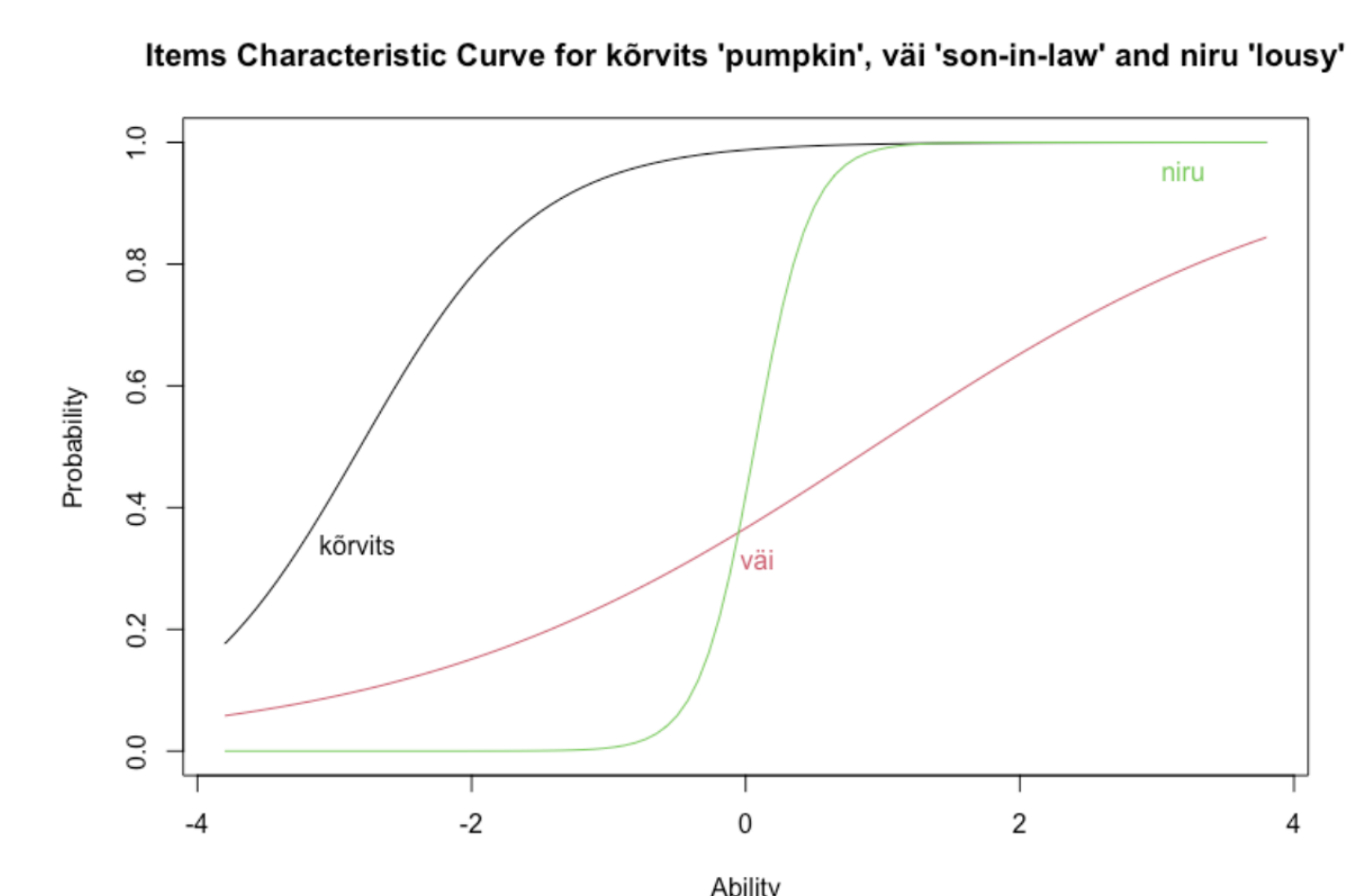
- LexEst makes use of a **visual lexical decision task** in which participants decide whether a letter string is an existing Estonian word or a nonword (cf. Lõo et al. 2018).
- The study was run **online** using a learning platform Ville developed at the University of Turku.
- **135 items:** 90 words from six different frequency bands and 45 nonwords, controlled for word length and bigram frequency.

	Words	Nonwords
Number of characters	M=4.78 min=3 max=8	M=4.97 min=3 max=7
Lemma frequency per million	M=15.13 min=0.20 max=265.47	-
Bigram frequency	M=106119	M=114188

- **500 participants** (18-77 years, 355 females and 145 males, 274 native and 226 non-native speakers).
- Most non-native speakers were **Russian** native speakers (n=116), followed by **German** (n=25), **Finnish** (n=16) and **English** native speakers (n=10).

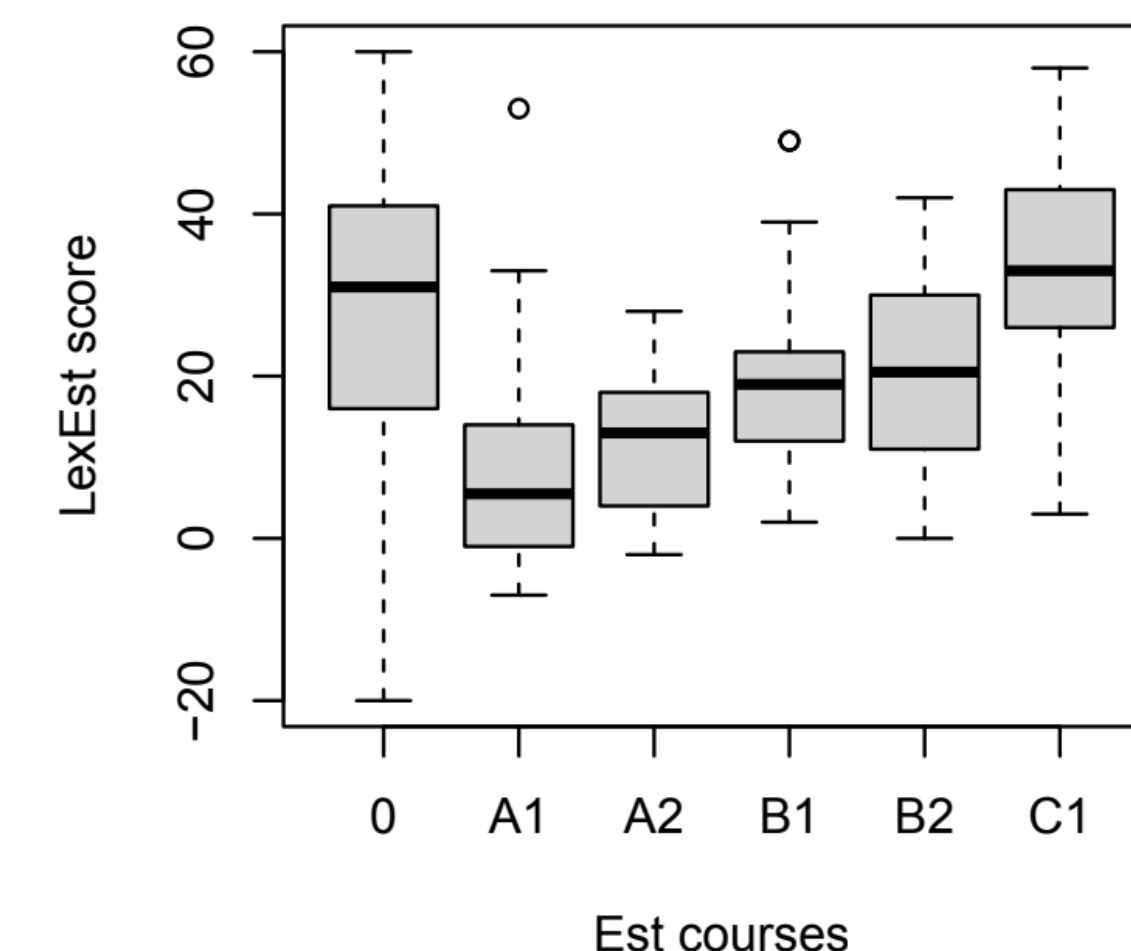
Analysis

- We assessed the quality of items using **point-biserial correlation** and difficulty and discrimination rates of the **item response theory** (Rizopoulos, 2006).
- By excluding the **easiest items** and **items of low discriminability**, we decreased the original item list to 90 items (60 words and 30 nonwords).

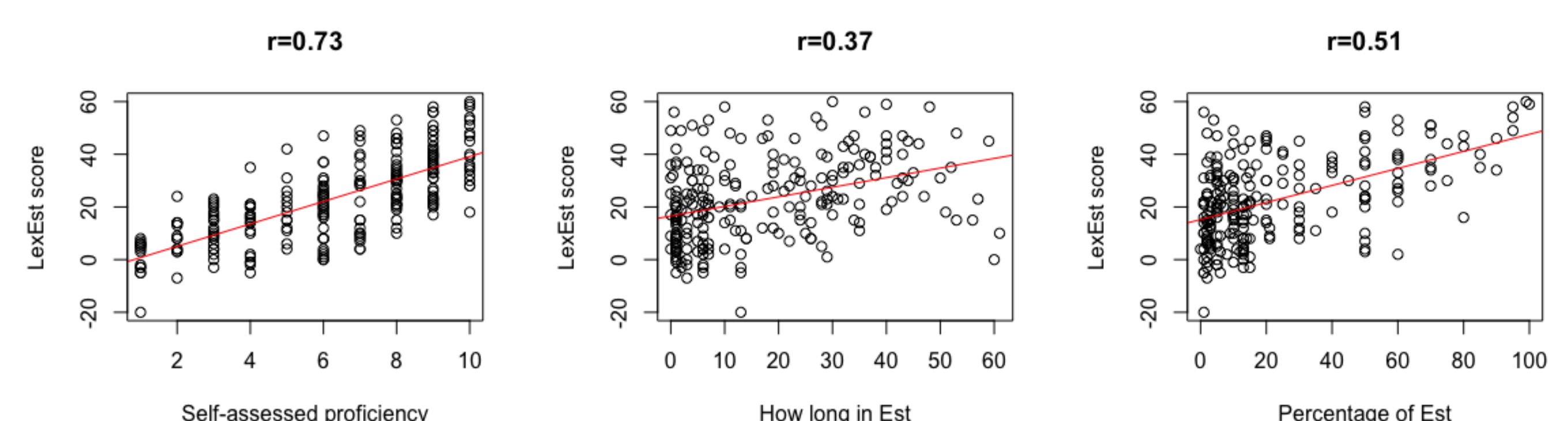


Results

- The average vocabulary score for **Estonian L1** speakers was 56.58, the average vocabulary score for **Estonian L2** speakers was 22.71 (range -20 to 60).
- Estonian L2 learners who participated in the higher level Estonian courses scored higher in LexEst.



- For Estonian L2 learners, the vocabulary score on the final set of items correlated well with **self-assessed proficiency**, **duration of stay in Estonia**, and **daily language use of Estonian**.



Conclusions

- LexEst enables a **quick and objective assessment of L2 learners' vocabulary in Estonian**, that resonates well with subjective measures of language proficiency such as self-assessed language skills.
- Try out the Estonian vocabulary test here:

