# Estonian as a Second Language Teacher's Tools

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## **Abstract**

The paper describes "Teacher's Tools" (et Õpetaja tööriistad) developed by the Institute of the Estonian Language for teachers and specialists of Estonian as a Second Language. The toolbox includes four modules: vocabulary, grammar, communicative language activities and text evaluation. The vocabulary module provides graded word lists for young (CEFR levels pre-A1-C1) and adult (CEFR levels A1-C1) learners. The grammar module provides descriptions of young learners' grammar competence. The communicative language activities module gives teachers an overview of the typical situations that learners should be able to cope with. The text evaluation module marks lemmas in texts according to their CEFR assignment in the vocabulary module. So far the grammar and the communicative language activities modules have been developed only for young learners (CEFR levels pre-A1–B2). The toolbox is aimed at providing support for the development of Estonian as an L2 courses, educational materials, exercises and tests within a CEFR-based framework. The project started in 2017 and is ongoing.

## 1 Introduction

"Teacher's Tools" is a compatible toolkit developed for teachers and specialists of Estonian as a Second Language, providing an extensive overview of the development of lexical and grammatical competence in Estonian among L2 learners. The toolkit is accessible as a sub-page of the language portal Sõnaveeb<sup>1</sup>. The framework of the project is based on the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR, 2001), its Companion Volume with New Descriptors (CEFR/CV, 2018) and the Collated Representative Samples of Descriptors of Language Competences Developed for Young

Learners for Ages 7–10 (Szabo, 2018a) and 11–15 (Szabo, 2018b). The toolkit distinguishes between adult (CEFR levels A1–C1) and young learners (CEFR levels pre-A1–C1). The methodology of the project is adapted from similar projects for other languages (e.g. Capel, 2010, 2012; O'Keeffe and Geraldine 2017; Alfter et al., 2019).

#### 2 Resources of Estonian as an L2

There are quite a few corpora available for the research of the Estonian Language (the biggest Estonian corpus is the "Estonian National Corpus 2019" (1,5 billions words))<sup>2</sup>. However, at the beginning of the project in 2017 there was a clear lack of resources available for the research of Estonian as an L2. In order to fill this gap, the Institute of Estonian Language compiled two types of corpora: 1) coursebook corpora and 2) learner corpora. As Volodina and Kokkinakis (2013) point out, the first type of corpora provides information about what and when education professionals found important for students to learn (passive linguistic competence), while learner corpora provide an indication of active linguistic competence. Both need to be studied since the second is directly influenced by the first. The coursebook corpora were compiled in several stages and resulted in two groups of corpora: "Estonian as a Second Language Coursebook Content Corpus 2017"3 (contains eight coursebooks for adult learners at levels A1-C1; 500 000 tokens) and "Estonian as a Second Language School Coursebook Content Corpus 2021"4 (contains 27 school coursebooks for grades 1-12; 1 300 000 tokens). The learner corpus was compiled in 2019-2021 and contains 6700 Estonian as an L2 young learner's texts. These are texts written mostly as state standard-determining tests (grades 3 and 6), basic school final examinations

https://sonaveeb.ee/teacher-tools

<sup>&</sup>lt;sup>2</sup>DOI: 10.15155/3-00-0000-0000-0000-08489L

<sup>&</sup>lt;sup>3</sup>DOI: 10.15155/3-00-0000-0000-0000-06ADEL

<sup>&</sup>lt;sup>4</sup>DOI: 10.15155/3-00-0000-0000-0000-0888BL



Figure 1: Vocabulary module

(grade 9) and state exams (grade 12) for 2017–2021. The data is available for analysis through the interface of the Estonian Learner Language Corpus EMMA<sup>5</sup>. The texts were not corrected or altered. Both types of corpora were used for the development of "Teacher's Tools". The coursebook corpora were used primarily to create passive vocabulary word lists and for the analysis of explicit and implicit grammar teaching. The learner corpus was used for the creation and analysis of active vocabulary word lists and the dynamics of grammar acquisition.

# 3 Modules of "Teacher's Tools"

"Teacher's Tools" consists of four modules: vocabulary, grammar, communicative language activities and text evaluation.

# 3.1 Vocabulary

The vocabulary module includes young and adult learners' word lists compiled on the basis of course-book and learner corpus word lists in comparison with frequency distribution in the "Estonian National Corpus 2017". Currently, the vocabulary list for adult learners includes about 12 500 words for levels A1–C1. The young learners' word list includes approx. 9000 words for levels pre-A1–B2. All words are presented as lemmas. Users can generate word lists based on learner type (young or adult) and POS. In addition, 24 topics (*clothes, furniture, birds* etc.) are compiled. The search results can be sorted alphabetically, by level or by POS (see Figure 1).

<sup>5</sup>DOI: 10.15155/1-00-0000-0000-0000-001A5L <sup>6</sup>DOI: 10.15155/3-00-0000-0000-0000-071e7l

#### 3.2 Grammar

The grammar module is the first attempt to create a systematic overview of Estonian L2 learner's grammar competence development. eral methodology was adopted from the English Grammar Profile<sup>7</sup> project (O'Keeffe and Geraldine, 2017). Currently, the grammar module provides descriptions of grammar competence on the morphology, derivation, phrase and sentence levels, from level pre-A1 up to level B2 (see Figure 2). The same grammatical category (e.g. the use of the genetive case for nouns or the use of imperative mood for verbs) may be described at all levels, but the functions and usage (how often the learner makes mistakes and what kinds of mistakes) are level-specific. Search options offer users choices of four main categories: morphology, derivation, phrase formation and sentence formation. The main categories contain 19 subcategories. For example, subcategories of morphology are verb, noun, adjective, numeral, pronoun, adverb. Every subcategory has grammatical markers (e.g. number and case for noun). The grammatical markers have values, for example number has values singular and plural. All descriptions are equipped with example sentences compiled either by experts or taken from coursebook and learner's corpora.

#### 3.3 Communicative language activities

The communicative language activities module is based on CEFR/CV descriptor scales, and examples are taken from Szabo (2018a,b), which include reception processes and strategies of written

<sup>&</sup>lt;sup>7</sup>https://www.englishprofile.org/english-grammar-profile/egp-online (13.01.2021)

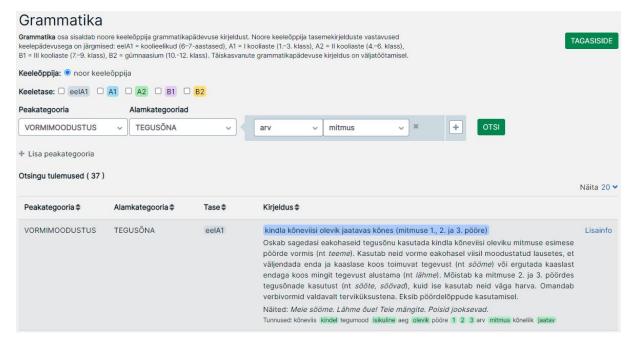


Figure 2: Grammar module

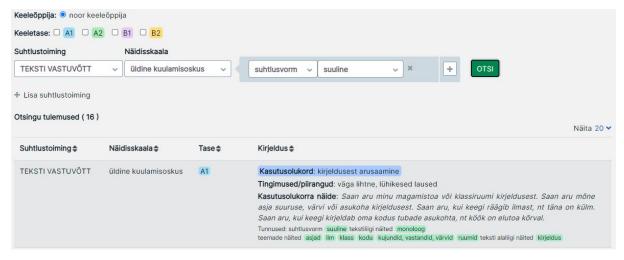


Figure 3: Communicative language activities module

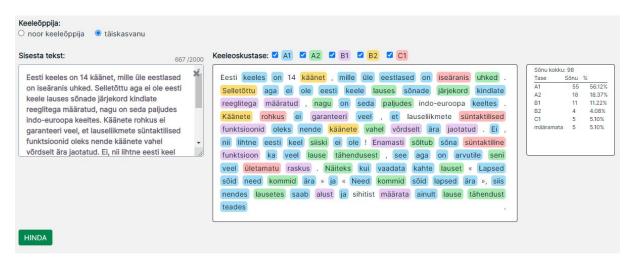


Figure 4: Text evaluation module

and spoken texts (listening and reading), written and oral text production and production strategies, and written and spoken interaction and interaction strategies. It covers young learners at levels A1–B2. The architecture of the module is similar to that of the grammar module, containing main categories (reception, production, interaction and mediation) and subcategories, which are followed by detailed descriptions, including limitations: when and how well the language user can manage certain communicative activities (see Figure 3). For example, by choosing the main category reception and the subcategory overall listening comprehension, a teacher can see that at the A1 level the learner should be able to understand a simple description with short sentences, for example about the weather or how big a certain object is.

#### 3.4 Text evaluation

The text evaluation tool helps to assess Estonian texts for their degrees of complexity according to the CERF (see Figure 4). Currently, the tool takes into account only lexical information and defines the CEFR level of each particular lemma based on CEFR vocabulary lists (see Chapter 3.1). Similar tools have also been developed for many other languages (see e.g. Alfter, 2021). The program runs on EstNLTK v 1.6, which offers functionality to lemmatise and perform morphological analysis. The tool needs to be developed further. First, there is a need to implement methods for the improvement of the analysis of homonyms (for example tamm can mean either an oak or a dam, which is assigned different levels in word lists) and multiword expressions. So far, the analysis is based only on single word lists, which is not sufficient.

# 4 Summary

"Teacher's Tools" is the first attempt to provide a systematic overview of the development of lexical and grammatical competence in Estonian as a Second Language. The project is a work in progress and further development of the toolkit is foreseen. We plan to add descriptions of the development of grammar competence and communicative language activities for adult learners. The enrichment of the text evaluation module with the possibility of measuring grammatical difficulty and readability (by for example adding Lix-index value) is under development. "Teacher's Tools" as a resource can be used for different CALL tasks, including auto-

matic CEFR-related vocabulary and grammar exercise generation or lexical simplification tasks. The use of NLP for the development of such computerassisted tools has enormous potential for enhancing the teaching and learning of Estonian as an L2.

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