

# A longitudinal introspective into the text comprehension tasks of national tests and exams of the Estonian language

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## Summary

### Introduction

Text comprehension is crucial for successful academic growth. Different components (linguistic and cognitive processes, and knowledge) at literal, inferential, evaluative levels are required to understand the oral and printed texts (Basabara et al., 2013; Tennet, 2015). The role of these components changes in time (Oakhill et al., 2015). While decoding fluency, and vocabulary predict the text comprehension of younger students, the prior knowledge, reading strategies, and comprehension monitoring skills are more related to the comprehension of older students (Duke & Carlisle, 2011; Quелlette, 2006). The effectiveness of text comprehension depends also on metacognitive skills (Kostons & van der Werf, 2015; Pintrich, 2002), critical thinking and inferential skills (Connor & Al'Otaiba, 2008). Younger students' inferences rely more on concrete hints and questions, and use less prior knowledge (Cain et al., 2004) whereas older students use more information from text (Symons et al., 2001), application of prior knowledge, and make generalisations based on texts (Kibui, 2012).

While reading texts at literal, inferential, and evaluative levels different comprehension components are used (Duke & Carlisle, 2011; Oakhill et al., 2015). Literal level is more related to linguistic components. At this level, readers understand the explicit information from the texts (Kibui, 2012). At inferential level, readers analyse texts, make inferences about the information provided in texts, integrate new information and prior knowledge into the coherent whole (Basabara et al., 2013). The tasks for younger students should be more concrete and offer smaller units of information. Older students are more capable to generalize, interpret, and make causal-consequence coherences (Cain et al., 2004). While reading texts at evaluative level, readers compare and contrast

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the new information to the prior knowledge, read between lines, and have an opinion about the author's intentions (Basabara et al., 2013; Kaplan, 2013; Kibui, 2012). To evaluate younger students' evaluative skills, the tasks should rely more on the text (e.g. making a schema). By the time the tasks can be more abstract (Van den Broek, 1997), e.g. finding the main idea of the text, evaluating and analysing the motives of characters.

In the text comprehension tests, it is important to measure skills at every text comprehension level, considering different components and students' cognitive development (Oakhill et al., 2015; Seigneuric & Ehrlich, 2005). Questions at different complexity levels have been taken into account, for example, in the PISA survey. The framework of PISA sets the percentages at different comprehension levels (OECD, 2008). Comparing Estonian students' text comprehension in national tests with the PISA survey, considerable differences have appeared. Only 11% of Estonian students are proficient readers according to PISA 2015 (Tire, 2016), whereas students' average scores in text comprehension tasks in Estonian national tests have been very good (70–90%) (see Hennoste, 2014, 2015). The discord between the results of Estonian students' text comprehension might be due to the emphasis on measuring different components of text comprehension. As there is no complete conception for assessing text comprehension in Estonia it is unclear which comprehension components with national tests of Estonian language are measured.

### **The objectives and research questions of the study**

In this study the comprehension tasks from national tests of Estonian language from 2013 to 2016 for Grades 3, 6 and 9 were analysed. The aim of the study was to find out the similarity in the structure of the distribution of text comprehension levels among the comprehension tasks in the tests of Estonian language (L1) for the same grade in different years. In addition, the change of comprehension levels in comprehension tasks of different grades was analysed. The research questions were as follows:

1. How similar is the structure of the distribution of comprehension levels among the comprehension tasks between the tests and exams for the same grade in different years?
2. To what extent does the distribution of comprehension levels change among the tests and exams in different grades?

## Method

The sample consisted of 226 tasks: 78 in Grade 3, 67 in Grade 6, and 81 in Grade 9. In the first step of data analysis, the deductive content analysis was used to divide the comprehension tasks into three categories: literal, inferential, and evaluative level tasks. The tasks where students had to recall or find the explicitly stated facts from the text were classified into the literal level. At inferential level tasks, students had to analyse, make inferences, and compare information from text. Tasks were classified into the evaluative level where students had to integrate new information and background knowledge in evaluating the text. In the second step, the scores for each comprehension level were calculated.

## Results and discussion

We assessed how similar is the structure of distribution of comprehension levels among the comprehension tasks between the tests or exams for the same grade in different years. We found that the focus was on different comprehension skills in different years. For example, the 2013 test for Grade 3 included 59.1% of inferential level tasks. However, in the next year there were only 18.2% of tasks at this level. In 2014 the test for Grade 6 included 76.0% of literal tasks, but in the previous year only 42.9%. There was no consistency in the tests for Grade 9 either, for example, in 2015 the test included 20.0% of evaluative level tasks but none in year 2016. Variability in the tasks at different levels in the tests for the same grades may be caused by the fact that there is no complete conception for measuring text comprehension. The lack of similarities in the tests carried out in the same grade does not allow any comparison of the results year by year. This comparison would be essential for teachers to plan and design their teaching as well as to make relevant inferences about students' development through years (Cutting & Scarborough, 2006). Also, educational politicians would need the comparison to make decisions (Tasemetöode ning põhikooli ..., 2015).

Next, we analysed to what extent the distribution of comprehension levels changed among the tests and exams in different grades. In most cases, the tests for younger students included more inferential and evaluative level tasks than the tests for older students. Only the tests in 2015 for grades 3 and 9 considered the students' growth: tests for Grade 3 included more literal level tasks and less evaluative level tasks than tests for Grade 9. Comparing the tests from other years revealed that the greatest numbers of tasks at evaluative level were revealed in tests for Grade 3. Furthermore, the tests for Grade 6 in years 2014

and 2015, and the one for Grade 9 in 2016, did not include evaluative level tasks at all. This result is not in concordance with previous studies, which have indicated that younger students' text comprehension is more related to the literal level and linguistic components. At this time it is important to include more readers' knowledge, cognitive processes, and meta-level skills at inferential and evaluative levels into the text comprehension process (Duke & Carlisle, 2011; Kibui, 2012; Seigneuric & Ehrlich, 2005).

Based on this study, several implications and recommendations can be made to improve students' text comprehension skills.

1. In the design of text comprehension tests, students' cognitive development should be taken into account. Although, it is important to improve comprehension skills at every level in all age groups, the emphasis in tests should move from literal tasks to inferential and evaluative tasks in older age groups.
2. In several countries, i.e. Norway, Sweden, Australia separate comprehension tests are used, allowing a better overview of students' comprehension skills at different levels. It would be essential to compile separate comprehension tests for Estonian schools as well.
3. Clearer principles in national tests would allow teachers to adopt methods that would improve students' text comprehension skills. Therefore, a complete conception for assessing students' text comprehension should be developed.

*Keywords:* text comprehension levels and components, structure of comprehension levels, national tests and exams, oral and printed text comprehension