



## Text deviations in reading by Russian heritage speakers

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ata Gathering \*\*Data Processing





### Introduction

In recent pupils' performance studies (PISA, PIRLS/IGLU) reading skills turned out to be a sine qua non condition for educational success as well as a stumbling block for many children and adolescents [1]. On this background, the acquisition of literacy by young people with migration background, practicing a heritage language within their families, is being paid more attention in recent scientific work. One of questions waiting for an answer concerns the benefit of becoming literate in at least two languages — the language of the social environment, mostly being the language of schooling, and the heritage language, as well. There seems to be some evidence that advanced reading and writing skills in both languages do have a positive impact on general linguistic performance and on educational success [2; 3].

But to what extent heritage speakers are able to read in their heritage language? As far as the category of heritage speakers seems to be a rather sociolinguistic one we expect to be faced with a great amount of heterogeneity in linguistic competence. The aim of our research is to determine how young people with Russian heritage language in Germany cope with the task to read aloud in Russian. What deviations from the text origin do they show? Which linguistic levels do attract errors? Whereas most studies on reading pay attention on the understanding of the text we aim to work on a more linguistic surface level.

### Hypothesis

- 1. **Reading rate and error rate** correlate: The faster the reading rate (tokens per second) is, the less is the error rate (errors/tokens). Both are considered as indicators of **general reading ability**.
- 2. The better persons read the more they show self-monitoring effects resulting in **self-corrections of erroneous reading**. The proportion of corrected and uncorrected errors serves as an indicator of **metalinguistic ability**.
- 3. Against the background of oral speech data, the following **frequency range of error types** is expected: phonetic errors > morphosyntactic errors > lexical errors.
- 4. Due to the difficult nature of word stress in Russian, we expect a great amount of **stress placement errors** within phonetic errors.

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### Material & Methods

We recorded 56 heritage speakers of Russian living in Hamburg (18 6-years old children; 20 11-year-old children and 18 test persons (t.p.), aged 15). The test persons had to manage different tasks. One of them was to read aloud a short story written for children by the Russian autor M. Zoščenko. The text consists of 172 tokens. Only 34 (61 %) of the t.p. sample participated in the reading test. 30 of them dealt with it successfully, reading at least 70 % of the words. Fig. 1 shows the distribution of reading abilities in the sample. The ability to read is growing from the subsample of 6-year-olds with an unsurprisingly low number of readers (17 %) over the 11-year-olds (60 %) till the 15-year-olds (83 %).

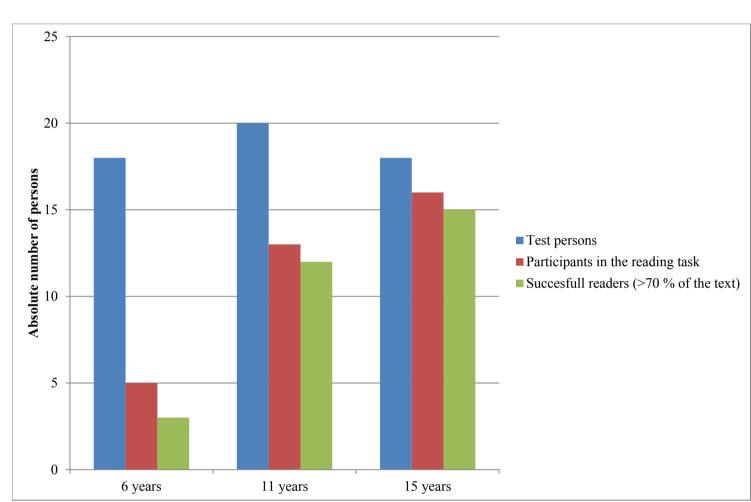


Figure 1: Reading skills by age groups

The recording procedure took place at the childrens' home. Digital recording was performed (44,1 kHz/ 16 bit) using a headset. Transcription and error type marking was made by EXMARaLDA.

An error type classification was applied distinguishing between phonetic (segmental and stress), morphosyntactic, and lexical errors [4]. Full or partial substitutions of words which did not lead to any distortion of the morphosyntactic structure were considered to be lexical errors. The changing of grammatical forms and of the word order were regarded as morphosyntactic errors.

### Conclusion

- 1. Within our sample, we observe a correlation between **reading ability and age** of the test persons which confirms hypothesis one: The reading ability growths with age. This tendency is manifested by the portion of reading persons per age group as well as by the **mean reading and error rates**.
- 2. In line with this result should be seen the relatively high amount of **uncorrected errors** produced by young readers, and their absolute and relative reduction with age. This phenomenon indicates on the development of metalinguistic competence.
- 3. In all age groups, **phonetic errors** are the most frequent ones, **followed** by errors in lexis and morphosyntax. The growing share of lexical errors on the general error rate of 11- and 15-year-olds, as well as the declension of phonetic errors can be interpreted as an indirect sign of growing linguistic competence.
- 4. **Stress placement errors** turned out to be seldom in contrary to data from L2/L3 learners of Russian.

#### Results

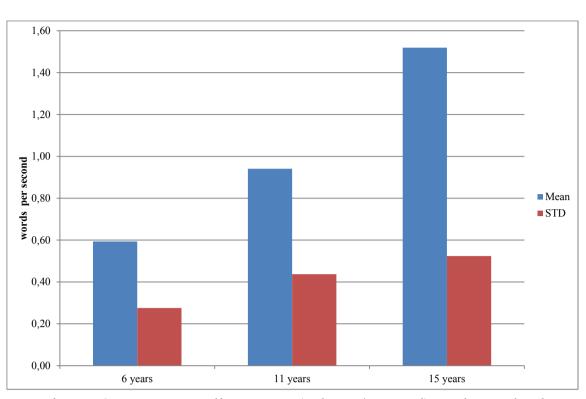


Figure 2: Mean reading rates (tokens/second) and standard deviation (STD)

The mean reading rate measured by words per second (Fig. 2) increases with age. That means, that the development of reading skills in Russian seems to be forced in the families (see also Fig. 1). Taking into account that we deal with an apparent-time study this result may be explained by different factors lying in the background of the subsamples. Fig. 3 displays the mean error rates defined as the averaged proportion of errors on text tokens. As we assumed, with growing age - and reading ability - error rates show declension. Phonetic errors constitute the most frequent error type for all groups followed by lexical and morphosyntactic deviations (Fig. 3). All errors within an age group assumed to be 100 %, we see that the share of phonetic errors is shrinking from 6 till 15 whereas the amount of lexical errors is growing rapidly from 6 till 11 years (Table 1). A slight increase can also be stated for morphosyntactic deviations. Within phonetic errors, segmental errors are the most frequent in all age groups, showing a tendency to rise (Fig. 5). The analysis of lexical errors discovers that readers on all age levels substitute tokens with existing Russian words relying on graphematic/phonematic as well as semantic similarities, often on both. An interesting parameter reflecting metalinguistic ability is illustrated in Fig. 4: The younger the reader, the higher the amount of uncorrected items and the relative share of them, and vice versa.

	Phonetic	Morphosyntactic	Lexical	Total
6 years	71	10	19	100
11 years	46	15	39	100
15 years	41	19	40	100
All ages	48	17	35	100

Table 1: Distribution of error types (in %)

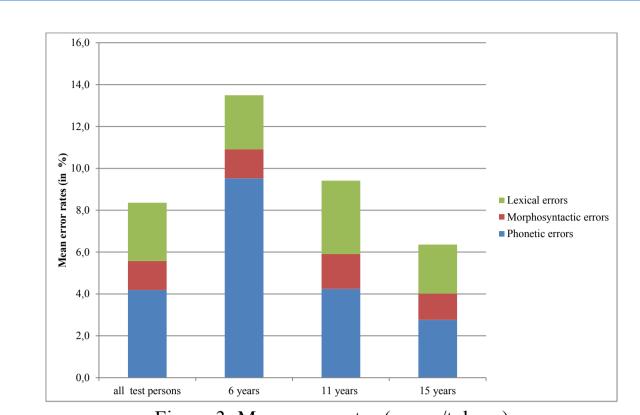


Figure 3: Mean error rates (errors/tokens)

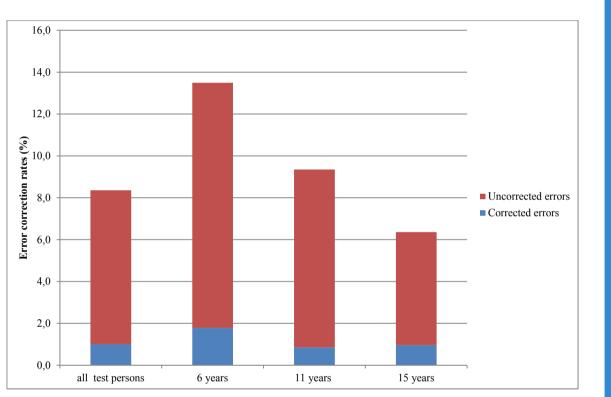


Figure 4: Corrected vs. uncorrected errors in relation to tokens

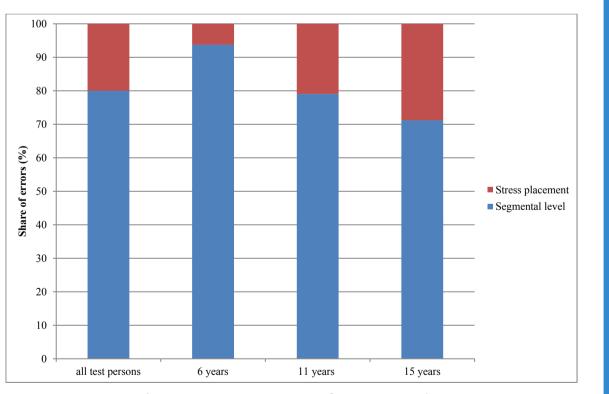


Figure 5: Percentage of segmental and stress placement errors within phonetic errors

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