

**RLMSEE-2020****The Russian Language in Modern Scientific and Educational Environment****TEXTS-PRIMITIVES AS MEANS OF DEVELOPING WRITTEN  
DISCOURSE FOR PUPILS WITH SPEECH IMPEDIMENTS**

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**Abstract**

One of the ways to acquire sociocultural field and put people's intentions into practice is conscious reading of signs, posters, advertisements, or other short-cut texts in urban environment. Short-cut texts or text-primitives, as a unique speech genre, feature a critically low level of coherence, though they bare informative integrity and high level of communicative efficiency and effectiveness. The following article considers the possibility of integrating short-cut texts into tutorial pool of instruments for specialists who work in inclusive workspace. The evaluation of task completion is provided on the base of five sets of text-primitives. Experimental data is collected by analysing 123 school students in the second year of primary school (55 demonstrated average speech development rate, 68 were diagnosed with speech disorders). Comparative study of the empirical data is instrumental in identifying methodical potential of text-primitives for broadening written discourse of students with speech impediments. Successful employment of written discourse for tackling communicative issues impacts quality of education and self-education, contributes to overall literacy level, enhances people's social interactions. Text-primitives' methodical potential for developing written discourse at pupils with speech difficulties is based on a highly motivational effect of the content, due to its creolized feature, and possibility to apply various tasks and assignments for developing reading and writing skills, as well as cognitive abilities.

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## 1. Introduction

Innovative changes have emerged in the educational system in the modern world. Comprehensive globalization and digital pedagogy, inclusion and integration are the distinctive characteristics of modern education (Adamas & Cheah, 2020; Froumin & Remorenko, 2020; Roshchina et al., 2018; Silova & Palandjian, 2018). Active development of advanced technologies for transferring information requires updating the content and forms of presentation of educational material. The fact that students with specific learning difficulties have special needs for the content and organization of the educational space should be kept in mind (Horowitz-Kraus & Finucane, 2016; Levchenko et al., 2018; Karabanova & Malofeev, 2019).

The group of pupils with problems in speech development in schools is the most numerous. The very multiplicity of the group draws special attention to the difficulties of children in acquiring the general education program as prescribed by the provisions of the Educational Standard. In accordance with the Federal State Educational Standard of primary general education, one of the requirements for mastering the program is «conscious reading ... extracting necessary information from texts of various genres ... understanding and adequate assessment of the media language» (Federal state educational standard of primary general education, 2009, p. 6). The difficulties of schoolchildren with problems in speech development have actualized the necessity to use tasks for practical application of written discourse in various communicative situations (Dimitriadis et al., 2018; Kiseleva, 2018; Lyubimov et al., 2020; Rao & Meo, 2016; Shemyakina et al., 2018).

## 2. Problem Statement

For practical application of written discourse, contemporary Russian vocabulary is necessary to be applied in diagnostic and methodical instrumentarium of those specialists who work with children that suffer from speech impediments. One of the examples of this vocabulary can be the content of various signs and outdoor advertisements of urban social space. According to some linguists, these texts are characterized as short-cut texts or text-primitives (Bochkarev, 2016; Mikhailyukova, 2017; Sakharny, 1991; Simonenko, 2016). Text-primitives bear unique appeal and have informative fullness and integrity (Pochtar, 2016; Shaklein et al., 2019). «To provide a better appeal in advertisements and signs, special language codes (graphic, phonetic, word building, semantic, grammar) are employed» (Adyasova & Gridina, 2017, p. 38). In broad terms, «all core features of a text that help it pursue communicative purpose» are utilized (Sakharny, 1991, p. 222). On the base of text-primitives specialists can create some tasks to focus on meaningful reading, morphemic and lexical analysis, as well as spelling for various communicative situations at schoolchildren, considering their speech impediments.

## 3. Research Questions

Considering all mentioned above, distinctive reading features and text-primitives' spelling opportunities for children with speech difficulties in comparison with their peers demonstrating average development rate had to be researched. The results of this study will help identify methodical potential of

the following lexical material for enhancing written discourse at pupils with various speech problems. Advertisements and signs have certain spelling features that are not clarified (explained) in systematic education. Understanding and interpretation of text-primitives read by a child requires certain analysis of previously studied linguistic rules.

#### **4. Purpose of the Study**

To identify the possibility of integrating text-primitives into specialists' methodical instrumentarium to work with children who suffer from speech disorders, a research study based on several sets of short-cut texts must be conducted. Reading correctness, content understanding, communication focus must be researched, as well as forecasting spelling correctness in each set of text-primitives.

#### **5. Research Methods**

One hundred twenty-three schoolchildren in their second year of primary school from 4 Moscow schools were picked. Considering their level of speech development, they were divided into two groups: 55 children with average speech development rate (SA) and 68 students with diagnosed various speech disorders (SD). All these students were educated with «School of Russia» program and studied English as a second language at school. In the research lexical material of text-primitives was used. The validity of this material was checked during the pilot project (Kiseleva & Elnikova, 2017). Texts of the signs and outdoor advertisements were grouped into five sets.

Set 1. Texts containing illustrations of objects or symbols. For example, the word "shoe" contains an image of a shoe; the letter «O» in the word is replaced by a symbol of an object of a similar shape (smile, donut).

Set 2. Texts containing various print mixtures of Russian language. These texts include different sizes of the print, as well as letters in bold or in italics.

Set 3. Texts with a combination of letters of the Russian and English alphabets. For example *Ваниль* (Vanilla).

Set 4. Texts with word combinations like conglutination. These texts include words that have been obtained by combining two, three words into one. For instance, EMBURGER (eatingaburger).

Set 5. Texts with neologisms. Neologisms have been obtained by word-formatting derivations. For example, BOUQUETORIUM (word-formatting derivations «bouquetorium is shop for bouquets» like «aquarium is house for fish»).

Parameters (indexes) found in the research in table 1.

**Table 1.** Researchparameters

Researchparameters	Parameter 's features	Scores			
		3	2	1	0
Readingcorrectness	Numberofmistakes	Total number of mistakes made while reading a set of texts			
Meaningofthecontent	Understanding of the read text and its content	Correct understanding and	Correct understanding and	Correct understanding and	Misunderstanding for all texts in the set

	interpretation regarding the communicative intention	interpretation of the entire set of texts	interpretation of 2 text-primitives from a set	interpretation of only 1 text-primitive from a set	
Spellinghypothesis	Writing a set of text-primitives analysis and possibility to forecast their writing in compliance with Russian language norms	Proper estimation of the spelling correctness / non correctness, possibility to eliminate all the mistakes in the set of texts, picking correct spelling for the entire set of texts	Proper estimation of the spelling, possibility to eliminate all mistakes in 2 texts in the set and/or finding the right spelling option for 2 texts in the set	Proper estimation of the spelling, possibility to eliminate all mistakes in 1 text in the set and/or finding the right spelling option for only 1 text in the set	Incorrect estimation of the spelling of the entire set of texts and/or incorrect spelling option for all texts in the set

## 6. Findings

In the research the parameters' outcomes were analyzed and some features of conscious reading for these two groups were found out. The average score for each set of texts was calculated by the formula

$$(1) \bar{c} = \frac{\sum_{i=0}^n c_i}{n}. \text{ In table 2 the results of both respondent groups are revealed.}$$

**Table 2.** Average group indices of the students of SA and SD

Column Heading	Set 1		Set 2		Set 3		Set 4		Set 5	
	SA	SD	SA	SD	SA	SD	SA	SD	SA	SD
Set of texts Groups of respondents	0,02	0,93	0,13	2,65	0,15	3,68	0,06	1,2	0,09	1,07
Readingcorrectness	3	2,91	2,42	1,64	2,6	1,74	3	2,8	2,43	1,58
Meaningofthecontent	3	2,83	2,51	1,28	2,11	1,12	2,4	1,45	2,42	1,04

The analysis by «reading correctness» parameter in each set of texts revealed that students with the average speech development rate made fewer mistakes than kids with speech disorders. Reading of the set 1 «Texts containing illustrations of objects or symbols» appeared to be the easiest for both groups of respondents. A letter/ syllable/ word illustration literally did not challenge students, they could decode and read the text without mistakes.

The biggest number of mistakes were made by children with SA while reading set4 «Texts with word combinations» and set 5 «Texts with neologisms». Herein, children commonly made predictive reading mistakes.

For students who suffer from speech underdevelopment the most challenging were texts in sets 2 and 3 where decoding of words that contained mixed prints, as well as prints in bold and italics and a combination of Russian and English language was required. In our opinion, children with various speech impediments experienced difficulties in decoding texts while switching from one language system onto another within one text. In addition, they demonstrated poor probabilistic forecast skills. Commonly

children SD made the following mistakes: breaking the structure of the word (letters transpositioning and letters omissions), mixing up graphically similar letters, mistakes in predictive reading.

The analysis by «meaning of the content» parameter revealed that students with the average speech development demonstrate much higher comprehension in each set of tests rather than children with speech impediments. For this indicator both groups of respondents exhibited the highest indexes in set 1 «Texts containing illustrations of objects or symbols» (SA=3, SD=2,91) and set 4 «Texts with word combinations» (SA=3, SD=2.8).

The most challenging for understanding and interpretation of the read text-primitives for children SD were sets 2, 3. These are sets where the mixtures of prints are applied to deliver the communicative appeal of the text, as well as set 5, where word building derivatives are employed. It should be marked that almost a 18% of pupils SD were able to read words correctly, repeat them mechanically, but did not know the meaning of the words. An opportunity to explain texts with communicative focus relates to person's cognitive and social experience, as well as their communicative speech skills development.

Analysis of students' opportunities to make a forecast for correct text-primitive spelling («spelling hypothesis» parameter) revealed a considerable difference between the groups of respondents in sets 2, 3, 4, 5. The opportunity to forecast text-primitive spelling in compliance with Russian language norms requires well established lexico-grammatical and syntax generalization, ability to perform cognitive activities. Various speech impediments and poorly established spellingskills at students SD did not let children make a forecast for correct spelling in major cases.

Here are some students' answers at analyzing the parameter «spelling hypothesis» in text-primitives given by students SD:

- Do not have any correct spelling forecast, i.e. failed to read and identify the word.
- Do not have any correct spelling forecast, i.e. consider the word to be written correctly.
- Propose to change the text to the one word similar in the meaning or spelling.
- Make a correct spelling forecast partly, offering to correct only some discrepancies in language norms.

The results of the analysis by «spelling hypothesis» parameter exhibited that students SD obviously experience vocabulary shortage, poorly established morphological envisioning, and poor spelling vigilance.

Total indexes by «reading correctness», «meaning of the content» and «spelling hypothesis» were calculated by formula (2)  $\bar{c}_{\text{арп}} = \frac{\sum_{i=0}^n c_i^{\text{Серия1}} + c_i^{\text{Серия2}} + c_i^{\text{Серия3}} + c_i^{\text{Серия4}} + c_i^{\text{Серия5}}}{n}$ . The total indexes in each of the parameters for both groups of respondents are provided in table 3.

**Table 3.** Total indexes of students SA and SD

Analyzedparameter	Groupsofrespondents		Reliability of differences' by Student t-test for two groups
	SA	SD	p (p< 0.005)
Readingcorrectness	0,45	9,54	2.1 * 10 <sup>-52</sup>
Meaningofthecontent	13,45	10,67	1.88* 10 <sup>-18</sup>

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Spellinghypothesis	12,43	7,71	$5.05 * 10^{-37}$
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Indexes comparison between SA and SD by parameter «reading correctness», «meaning of the content» and «spelling hypothesis» with the help by *Studentcriterion* obviously proved the existence of differences between the groups in each parameter ( $p < 0,005$ ). As the data revealed, students that belong to SA group make significantly fewer mistakes while reading signs: the average number of mistakes at reading made up SA=0,45, SD=9,5, which is more than 20 times higher.

Understanding of the content at students SA is 1,3 (26%) higher than at children SD. By «spelling hypothesis» parameter analysis SA students' outcome is 1,6% (61%) higher. The comparative analysis of total indexes of both groups of students revealed that children with speech impediments in their second year lack well established reading skill as well as objective, analytical type of reading. According to Egorov (2006, p. 16). objective reading type «features great accuracy, guided by sound-letter word composition ... makes rare mistakes while reading words with misses or replaced letters».

## 7. Conclusion

The analysis of the given results lets us make the conclusion that students with speech difficulties in the second year of schooling experience technical, semantic, prognostic problems while reading short-cut texts. Misread or misinterpreted words in urban socio-space may lead to distortion of linguistic vision of a child. Unidentified discrepancies of language norms in advertisements and signs, made by an author on purpose, children may take as a norm and apply them in their written speech later. According to psychologists «misconceptions impair not only learners' comprehension of a text but also the accuracy with which they judge their comprehension, that is, metacomprehension accuracy» (Prinz et al., 2019, p. 957).

Advertisements' and signs' texts application as a tool for developing written discourse at children with speech underdevelopment may let us solve the following issues:

- Boosting motivation towards written discourse. The following lexical material features individual and vivid character. It employs communicative and appealing functions and engages students in a «language game».
- The opportunity probabilistic forecasting. It is essential for preventing spelling mistakes as well as for making a guess while learning to read. To make some prediction, a child should be able to analyse linguistic summaries acquired before. Basing on the analysis, we can construct the probability of writing a word in compliance with the Russian language spelling rules and the hypothesis of reading words.
- The opportunity to master semantic reading skills. Text-primitives are poly-coded. Decoding their verbal and nonverbal (pictures, various sound-letter system, different prints, different colors of the words) parts requires accurate analytical reading skills. At the same time, advertisements and signs have communicative nature, that provides an opportunity to find out the hidden meaning and thoughts of the author.

- Mastering of visual analysis and synthesis as well as verbal and logical thinking, developing self-control over your own written output. These mental functions are fully employed, as while completing tasks and assignments students face word's spelling that does not comply with the Russian language norms, neologisms, irregular letters' usage.
- Practical application of comprehensive conscious reading and writing according to the spelling rules in various communicative situations. The material of text-primitives relevant, as students see and read signs on various buildings daily. Urban signs, posters, advertisements have become a significant part of our lingua-space.

In conclusion, it is necessary to mention that text-primitives vocabulary should be used in the methodical instrumentarium of those specialists, who work in inclusive educational environment.

## References

- Adamas, D., & Cheah, K. (2020). Global citizenship and global learning in schools. Developing effective learning in Nepal: Insights into school leadership, teaching methods and curriculum, Kathmandu: British Council, 94-99.
- Adyasova, O. A., & Gridina, T. A. (2017). Reklamakaktekstvozdejstviya: graficheskij kodyazykovojigry [Advertisement as a manipulation text: the graphic code of word play]. *Philological class*, 50(4), 37-43. [in Rus.].
- Bochkarev, A. I. (2016). Tekstovyeprimitivity [Text primitives]. *Scientific Dialogue*, 8(56), 9-20. [in Rus.]. <https://www.library.nstu.ru>
- Dimitriadis, S. L., Simos, P. G., Fletcher, J. M., & Papanicolaou, A. C. (2018). Aberrant resting-state functional brain networks in dyslexia: Symbolic mutual information analysis of neuromagneticsignals. *International Journal of Psychophysiology*, 126, 20-29. <https://doi.org/10.1016/j.ijpsycho.2018.02.008>
- Egorov, T. G. (2006). Psihologiyaovladiyanavykomchteniya [Psychology of mastering the reading skill]. KARO. [in Rus.].
- Federal'nyjgosudarstvennyjobrazovatel'nyjstandartnachal'nogoobshchegoobrazovaniya [Federal state educational standard of primary general education]. (2009). [in Rus.]. Retrieved on 23 May, 2021, from <http://www.fgos.ru.pdf>
- Froumin, I., & Remorenko I. (2020). From the «Best-in-the World» soviet school to a modern globally competitive school system. *Audacious Education Purposes. How Governments Transform the Goals of Education Systems*, Springer, 233-250. [https://doi.org/10.1007/978-3-030-41882-3\\_9](https://doi.org/10.1007/978-3-030-41882-3_9)
- Horowitz-Kraus, T., & Finucane, S. (2016). Separating the Different Domains of Reading Intervention Programs: A Review. *SAGE Open*, 6(2). <https://doi.org/10.1177/2158244016639112>
- Karabanova, O. A., & Malofeev N. N. (2019). Strategiyarazvitiyaobrazovaniyadetej s OVZ: podoroge k realizaciikul'turno-istoricheskogopodhoda [Education development strategy for children with disabilities: On the Way to implementing a cultural-historical approach]. *Cultural-Historical Psychology*, 15(4), 89–99. [in Rus.]. <https://doi.org/10.17759/chp.2019150409>
- Kiseleva, N. Yu., & Elnikova, A. E. (2017). Priemyizucheniyaleksicheskogorazvitiyadetejnamaterialereklamnojleksiki [Techniques for studying the lexical development of children on the basis of advertising vocabulary]. *Problems of modern teacher education*, 57(3), 86-93. [in Rus.].
- Kiseleva, N. Yu. (2018). Organizacijalogopedicheskograby v obshcheobrazovatel'nojshkole [Organization of speech therapy work in a general education school], MGPU. [in Rus.]. Retrieved from <https://www.elibrary.ru>
- Levchenko, I. Yu., Prikhodko, O. G., Guseinova, A. A., & Manuilova, V. V. (2018). Inklyuzivnoeobrazovanie: special'nyeusloviyavklyucheniyauchashchihsya s OVZ v obrazovatel'noeprostranstvo [Inclusive education: special conditions for the inclusion of students

- with learning disabilities in the educational space]. NKC. [in Rus.]. Retrieved from <https://www.nbcmedia.ru>
- Lyubimov, M. L., Prikhodko, O. G., Zakharova, M. O., & Moks, A. A. (2020). Formirovaniiefunkcional'nojgramotnosti u detej s ogranichennymivozmozhnostyamizdorov'yanaosnoverazvitiyaproektnojdeyatelnosti[Formation of functional literacy based on the development of project activities for children with learning disabilities]. *Special education*, 2(58), 73-93. [in Rus.].
- Mikhailyukova, N. V. (2017). Tekstyvyvesokkakosobyjmalypis'mennyjzhanr v kommunikativnomprostranstvegoroda (namaterialeazyka g. Vladivostoka) [Sign texts as a special small written genre in the communicative space of the city (based on the language of Vladivostok)]. *Bulletin of the Chelyabinsk State University*, 3(399), 51-58. [in Rus.].
- Pochtar, E. I. (2016). Communicative conditionality of speech anomalies in the present-day public discourse. *Science Journal of VolSU. Linguistics*, 15(4), 87-95. <https://doi.org/10.15688/jvolsu2.2016.4.9>
- Prinz, A., Golke, S., & Wittwer, J. (2019). Refutation texts compensate for detrimental effects of misconceptions on comprehension and metacomprehension accuracy and support transfer. *Journal of Educational Psychology*, 111(6), 957–981. <https://doi.org/10.1037/edu0000329>
- Roshchina, Ya. M., Roshchin, S. Yu., & Rudakov V. N. (2018). Sprosnamassovyeotkryteonlajnkursy (MOOS) Opytrossijskogoobrazovaniya [Demand for Massive Open Online Courses (MOOC): Experience of Russian Education]. *Education Issues*, 1, 174-199. [in Rus.]. <https://doi.org/10.17323/1814-9545-2018-1-174-199>
- Rao, K., & Meo, G. (2016). Using Universal Design for Learning to Design Standards-Based Lessons, Center for Applied Special Technology, Wakefield, MA, USA, 1-12. <https://doi.org/10.1177/2158244016680688>
- Sakharny, L. V. (1991). Text-primitives and patterns of their generation. The human factor in language: language and speech generation. *Science*, 221-237.
- Shaklein, V. M., Belova, M. A., & Mikova, S. S. (2019). Creolized text in the media: principles for effective decoding. *Questions of theory and practice of journalism*, 8(1), 147–163. [https://doi.org/10.17150/2308-6203.2019.8\(1\).147-163](https://doi.org/10.17150/2308-6203.2019.8(1).147-163)
- Shemyakina, N. V., Nagornova, Z. V., Galperina, E. I., Novikov, V. A., Pozdnjakov, A. V., & Kornev, A. N. (2018). Mechanisms of reading in persons with different level of written text comprehension. *Human physiology*, 44(2), 152-160. <https://doi.org/10.1134/S0362119718020159>
- Silova, I., & Palandjian, G. (2018). Soviet empire, childhood, and education. *Revista Española de Educación Comparada*, 31, 147–171. <https://doi.org/10.5944/reec.31.2018.21592>
- Simonenko, M. A. (2016). Kul'turnyekodygorodskojvyveski[Cultural codes of city signs]. *Humanitarian research*, 3(59), 38-44. [in Rus.].