

REPORT ON THE RUSSIAN LANGUAGE FOR THE WORLD DYSLEXIA FORUM 2010

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Introduction

The Russian Federation (hereafter, Russia) is the largest country in the world. With a territory of 17,075,400 square kilometers (6,592,800 sq mi) it covers $\frac{1}{9}$ of the Earth's land mass; its territory is inhabited by 142 million people, which makes Russia the ninth most populous nation in the world, contributing approximately 2% to the world's population. Russian landmass spreads across 11 time zones and includes a variety of climates, landforms, and landscapes. It stretches almost half way around the world and connects two continents, Europe and Asia. It has the world's largest reserves of mineral and energy resources and it contains $\frac{1}{4}$ of the fresh water of the world.

The population of Russia is highly diverse, encompassing Russia's 160 ethnic groups, whose people speak some 100 languages (not all of these languages are written). Yet, the Russian language is the only official state/federal language. Russian is considered the most geographically dispersed language of Eurasia. Outside of the Russian Federation it is spoken primarily in the former USSR republics, but is used by small communities of Russians in every country of the world. It is estimated that an additional 120,000,000 Russian speakers reside outside of Russia. Yet, despite its world-wide distribution, it is homogeneous. Historically, Russian belongs to the Indo-European language family and is one of the living members of the East Slavic languages (along with Belarusian, Ukrainian, and, perhaps, Rusyn). Thus, Russian is an example of a fairly young language (the predecessor of Russian and other related Slavic languages was in common use by the 5th century AD), which was written using the Slavic alphabet (Cyrillic) in 10th century.

The Russian Constitution give its 21 autonomous republics the right to institute their native language co-officially next to Russian, but the 2002 Census data indicated that the overwhelming majority of the population (98.2%) spoke and read Russian (although only 79.8% of the population were recorded as ethnically Russian). Thus, Russian is the language of literacy in the Russian Federation; the

literacy rate is estimated by the UN at 99.4%, which places Russia behind the UK (99.9%), but ahead of the US (97%), followed by other countries of the world.

The Russian language has 33 letters (8 vowels, 23 consonants, and 2 silent letters) and 42 phonemes. A number of characteristics of the Russian language as the basis of literacy in the Russian Federation are relevant to the discussion here. *First*, Russian orthography is relatively regular; however, it contains a number of deviations from the 1:1 grapheme–phoneme correspondence. Some irregularities are determined by the unique system of marking the palatalization (or “softness”) of the preceding consonant with the help of the following grapheme and the positionally motivated changes in vowel grapheme–phoneme correspondences. In addition, there are some morphologically motivated deviations from the written representation of a word’s spoken form and some exceptions that simply have to be memorized by the learners. Previous research shows that the complexities of Russian orthography present a problem in the acquisition of writing (Kuzmina, 2005; Pavlova, 2000; Rusakova & Ceytlin, 1999; Ushakov, 1959) and cause lower accuracy scores and longer reaction times for reading words containing orthographic complexities in beginning readers (Kerek & Niemi, 2009). *Second*, an important property of alphabetical scripts is their morphemic distinctiveness¹. A purely phonemic script may be extremely easy to learn to decode and would serve the novice reader well, but if it represents a language with a high degree of homophony, it would violate the principle of morphemic distinctiveness and would present a problem for more skilled readers. English is an example of a language that serves the interests of an expert reader, but poses challenges for novice readers. Russian is much more phonemic than English, with many morphemic variations represented with distinct graphemes [e.g., друг “drug” (friend) – друзья “druz’ja” (friends)]. On the other hand, Russian is a highly morphologically complex language, characterized by complicated word formation and conjugation and declension patterns that involve morphemic fusion, morphological syncretism and shifting stress patterns (Wade,

¹That is, each morpheme has one and only one written representation without any morphophonemic variations (e.g. electric, electricity, electrician) or homophones represented by different spellings (e.g. two and too).

1992), as well as phonological alternations and deletions (Halle, 1959). *Third*, another cross-linguistic difference that may be relevant to reading acquisition is the complexity of the language's syllabic system. It was proposed that in languages with predominantly CV syllables and consistent orthography, well-developed decoding skills lead to success in reading acquisition (Goswami, 2002). In languages with more complex syllabic structures such as CVC, CVVC or CVCC, but with consistently straightforward mappings between phonology and orthography, phonemic segmentation skills are less easily acquired due to the presence of numerous consonant clusters. According to this theory, reading acquisition is the most demanding for children learning to read in a language that has both inconsistent orthography and complex syllable structure. While English has a more complex orthography than Russian, it has a simpler syllable structure than Russian. Russian words predominantly include 2- and 3-syllables of the CV and CVC structure (Bondarko, 1998; Zinder, 1987, 2007). Yet, it is characterized by a complex syllable structure with frequent multiple consonant clusters and syllables as complex as CCCCVC [e.g., вскрыть "vskryt'" (open up)]. At this point, it is unclear how this phonological complexity affects reading acquisition and whether greater orthographic transparency counterweighs its demands on the developing reader. *Fourth*, a typological difference between English and languages like Russian that may have an effect on reading acquisition is the flexibility of word order (Bailyn, 1995). While in English the order is fixed to SVO, in Russian any order between subject, verb and object is possible, and the reader has to rely on inflectional distinctions between words to extract the grammatical roles. Therefore, reading comprehension is not aided by word order and relies entirely on the successful decoding of words, which presents an additional challenge to the beginning reader. *Fifth*, Russian allows a clear distinction between accuracy and fluency to be drawn. This distinction is difficult to study in English because the prevalence of spelling-sound irregularities in that language frequently causes readers encountering a novel string to misidentify the word. Consequently, accuracy, in English, has become the dominant measure in reading acquisition, with standard reading assessments being accuracy based with

little attention paid to developing measures such as fluency and speed (Lyon, et al., 2005). Fluency, however, is an important metric to study because (unlike accuracy) it has been shown to be affected in childhood dyslexia across languages (Porpodas, 2005; Share & Shalev, 2004; Shaywitz, et al., 2003). Also, research suggests that fluency and/or its components might have distinct neuro- and genetic correlates (Breznitz, 2006; Wood, Flowers, & Grigorenko, 2002). In Russian, developing fluency is not impeded by a high degree of irregularity, and measuring fluency and speed is not complicated by a high rate of reading inaccuracy in novice readers. *Finally*, as many other transparent languages, Russian is characterized by a relatively short time of code acquisition. In English, this time is lengthy and, in typically developing children, the variation in the speed of acquisition has been associated with level of IQ (Share, 2008). In Russian, however, accuracy and fluency of reading does not appear to be related to IQ, whereas comprehension does.

Historical Context

The first descriptions of serious deficiencies in the acquisition of reading and writing in the USSR appeared in the literature in the 1930s. Tkachev (Tkachev, 1933) described 9 cases of what he referred to as “inherited alexia and agraphia” in children with normal intelligence. Five of these children had relatives with similar deficiencies. Three of these children could not acquire letter knowledge; the other 6 read letter-by-letter. Syllable construction was not mastered by any of these children. Mnukhin (Mnukhin, 1934) presented three boys with alexia and agraphia; they all read letter-by-letter. Describing the psychological texture of the deficits in these three boys, the author pointed out that all three of them had difficulty with successive processing (e.g., when naming letters, digits, seasons, and week days) and demonstrated considerable weaknesses in phonological processing (e.g., when asked to count numbers of syllables, construct a word of letters, or insert missing letters). Mnukhin interpreted these

cases as manifestations of developmental selective partial cognitive impairment resulting from minimal brain damage. Both authors referred to these cases as cases of alexia and agraphia, connecting the observed presentations to what was known as deficits in reading and writing related to brain trauma, but stressing the absence of trauma and making reference to the innate nature of the observed deficiencies by using the word “inherited.”

Due to various societal forces that operated in the USSR from the 1930s to the 1970s, there was a gap in understanding childhood developmental conditions. The next publications, carried out in this “medical” tradition, appeared only forty years after. In the 1970s and 1980s, the descriptions and discussions of dyslexia and dysgraphia in Soviet literature were carried out in conjunction with the discussion of *умственной отсталости*² (Isaev, 1982; Isaev, Efremov, & Pushkansaia, 1974; Isaev, Karpova, & Karpov, 1976) and *задержки психического развития*³, hereafter, ZPR (Lebedinskaia, 1982; Pevzner, 1966; Sukhareva, 1965). Of note is that, in the USSR (i.e., up to the 1990s), the diagnosis of developmental delay was based on clinical, not psychometric indicators⁴, and included lack of emotional maturation and mild cognitive/intellectual impairment. Only during the last 20 years or so, with the development of the psychological testing industry in Russia, has more attention been paid to the inclusion of psychometric information into diagnostic procedures (e.g., the usage of the data from the Russian adaptation of the WISC, Panasiuk, 1973)⁵. The diagnosis of ZPR is widely used in today’s Russia, and difficulties in reading acquisition⁶ are typically referred to as a syndrome within the manifestation of ZPR. Of note also is that the presence of such difficulties are established regardless of the level of IQ

²Mental retardation.

³There is no adequate direct translation of this concept in English; it captures the meaning of extended developmental delay and is close to the concept of *minimal brain dysfunction*.

⁴There are historical reasons for this such as the prohibition of psychological testing in Russia (for more details, see Grigorenko & Kornilova, 1997).

⁵Of note is the lack of correspondence between Russian and US standards in interpreting threshold for mental retardation using the WISC-generated IQ (in Russian—общий интеллектуальный показатель). As a result of the 1973 standardization (there has not been a re-standardization since then), the range of IQ for ZPR is established as 80-95 and for mental retardation as 50-79.

⁶Also referred to as *дислексия* (dyslexia) or *специфическая неспособность к овладению чтением* (specific reading disability).

(i.e., the discrepancy criterion has not been used/is not used in Russia, with rare exceptions such as Kornev, 1995, 2003), as long as it falls within the range of ZPR (i.e., the standard score of 80-95). Thus, in Russia, the descriptors of difficulties in reading acquisition are used with regard to children with ZPR (or children with mild mental retardation).

Yet, such perturbations as described above did not stop, of course, educators and other related professionals in the USSR from studying reading and typical and atypical reading acquisition. These studies were carried out primarily within *logopedia*⁷ and *defectology*⁸. The development of this direction of work is connected to the Roza Levina, one of the students of Lev Vygotsky. Her candidate to doctorate⁹ dissertation, titled *Нарушение чтения и письма у детей (алексия и аграфия)* [Difficulties in reading and writing in children (alexia and agraphia)] formed the foundation for subsequent research and practice in the USSR. The premise of this position is that difficulties in the development of written language (i.e., reading and writing) are directly related to difficulties in spoken language, in particular its phonological aspect. It was formulated, to a certain degree, to oppose the treatment of difficulties in reading and writing through references to visual-spatial deficiencies—a position that was prevalent, at that time, in Western psychology and pedagogy. Of note, however, is that Levina's position was not absolute—discrepant cases were noted, in which a severe deficiency in spoken language might not be associated with a severe deficiency in written language and vice versa (Levina, 1940; Spirova, 1965). Thus, in the USSR, research and practices involving difficulties in written language were directly connected to research and practice in spoken language, and both unfolded in the context of logopedia and defectology. Of note is that this work has been quite productive and has resulted in hundreds of

⁷Traditionally, logopedia is a domain of science and practice concerned with the physiology and pathology of the organs of speech and with the correction of speech deficiencies (e.g., stuttering and pronunciation). In Russia, however, logopedia covers both spoken and written language (i.e., practitioners of logopedia, or logopedes, correct deficiencies not only in spoken, but also in written language).

⁸A domain of science and practice concerned with studying and working with children with handicaps, of all kinds and all severity levels.

⁹The Russian system of degrees assumes two levels, a candidate to doctorate (corresponding to PhD in USA) and a doctorate (corresponding to higher doctorates in the United Kingdom, Ireland, France, and the German habilitation).

articles and dozens of books and manuals. Of note also is that the distribution of work between reading and writing is uneven: in teaching literacy in Russian, primarily due to its phonological and morphological characteristics, the major remedial accent has been placed on spelling and writing rather than on reading itself.

Reading/Writing Acquisition of Russian in the Context of Typical Development

In Russian schools, orthography is taught for 9 years, whereas it is assumed that the basic skills of reading are mastered within the first 4-5 years of formal schooling. Fundamentally, teaching reading in Russian is based on the analytic-synthetic method of teaching reading. This means that first children are taught to phonetically analyze spoken words, then—to learn the alphabet, and only then—to learn how to use letters to synthesize syllables and words based on their sound representation. Thus, a typical Russian child, while acquiring the skills of reading and spelling, needs to master the following steps.

First, the child needs to master the syllabalization (i.e., syllable formation, syllable-based construction and deconstruction of words). Whole-word reading is taught only after syllabalization is mastered. It has been stated (Zinder, 1987, 2007) that letter (alphabet) knowledge and understanding of the syllable-based principle of writing in Russian is sufficient for decoding (sounding out) the majority of Russian words. There are words, however, for which the decoding assumes the rules of orthography, but they are limited in number (such words, typically, involve palatalization and vowel reduction). To accommodate for these complexities of Russian, syllable-based reading is typically taught during the first two years of schooling (Egorov, 2006; Kornev, 1995, 2003), although most children master the code in a year of formal schooling.

Second, the child needs to master the skills of decoding and recoding. Major difficulties in mastering reading are typically related to acquiring skills of syllable construction and then syllable blending (i.e., recognizing the letters composing a syllable or a one-syllable word as a unit and pronouncing a consonant in the syllable, taking into account the positional influence of the vowels that follows the consonant). Given that the overwhelming majority of Russian words have multiple syllables, accurate whole-word recognition is possible only when syllable-based reading becomes fluent and automatized. Thus, assuming that the principles of code are mastered during one or, at most, two first years of formal schooling, the major accent in subsequent 2-3 grades is placed on the development of fluency in reading (i.e., the skill that allows the seamless, accurate, and quick blending of syllables into words). This acquisition of fluency is highly monitored by educators, as the speed of reading becomes the main indicator of the degree of reading mastery in Russia after the first year of formal schooling.

The *third*, and most complex task of a beginning reader of Russian, is to learn rules of spelling. As mentioned above, these rules are driven by three major principles: phonological, morphological, and syllabic. The majority of Russian words are spelled the way they are said and read, that is, on the basis of phonological principles of spelling. Yet, the spellings of many-many words in Russian¹⁰ are driven by various morphological and syllabic rules, which are both multiple and complex. It is the acquisition of these rules that takes time and generates the tremendous amount of individual differences in reading acquisition among Russians. It is this disproportionate distribution of difficulties in mastering reading vs. spelling that results in the observation that, in Russian children, deficiencies in mastering reading are observed at least half as frequently as difficulties in mastering spelling (Kornev, 1995, 2003).

A special note should be made with regard to the changes in the educational system that followed the major societal perturbations of the 1990s. As a result of the “democratization” of the Russian educational system, two major changes occurred. First, what previously was a tightly controlled

¹⁰And the current estimates of the number of words in Russian place it at 350,000 to 500,000.

and monitored homogeneous system of education with the whole country using the same set of textbooks and, literally, going through the same page of these textbooks on the same day, has diversified into many-many programs that are both less controlled and supervised and more heterogeneous. Thus, overall quality control of the Russian educational system has deteriorated—old control mechanisms have been dismissed and new control mechanisms are just being developed. Second, many new “experimental” textbooks have appeared. Previously, any textbook that was to be used country-wide needed to go through multiple expert control steps; now there are literally dozens and, perhaps, hundreds of textbooks for different subjects. What is used in any particular classroom is only loosely controlled and the decision-making process for adapting textbooks is not well regulated. As a result, tools of known and tested quality have been substituted with tools of unknown quality and effectiveness. Whether the new modes of education and new textbooks are better or worse than those of the “old” Russian education system is yet to be determined. Unfortunately, there have not been many empirical studies that investigate this question. What is obvious, however, is the lowered general levels of engagement with reading and quality of writing and written expression that is reflected by the indicators of ЕГЭ, the results of Russian children in international educational comparison studies and the comments of educators on the levels of functioning of their students.

Reading/Writing Acquisition of Russian in the Context of Atypical Development

Typical presentation

Educators and researchers, and clinicians in the related fields education, psychology, and social services, distinguish the following difficulties of reading mastery in Russian children.

- (1) Immature reading, indicating that the child has difficulty transitioning from letter- to syllable- to word reading. In context of this difficulty, a word is read first letter-by-letter, then syllable-by-syllable, and finally, as a single word (e.g., the word *рука* (*ruka*—*hand*) is read first as *р..у..к..а*, then as *ру..ка*, and only finally as *рука*, as a word).
- (2) Low speed of reading, which is typically coupled with immature reading and is also characterized by lack of accentuation and prosody.
- (3) Lack of accuracy during reading aloud is manifested in a variety of ways, mostly in vowel and consonant substitution and letter replacement or omission. Typically these errors are not consistent and, while reading the same sentence, the child may make different errors. For example, while reading the word *хотела* (*khotela*—*wanted* in feminine form), a child can generate a number of words that might or might not have meaning (e.g., *ходела*, *хотила*, *ходила*); similarly, while reading the word *щука* (*schuka*—*pike*), a child can read *чтука* or *цтука*, not noticing that both words are pseudowords. Among such mistakes, vowel substitutions are more common than consonant substitutions; the replacement and omission of letters is relatively infrequent. Of interest is that a comparison of such errors in groups of children with dyslexia with their typically developing peers matched on overall level of reading mastery (i.e., 9-10 year olds vs. 7-8 year olds) did not reveal differences in the percentages of specific types of errors (Kornev, 1995). In other words, children in both groups made similar errors, but children with dyslexia made more of them.
- (4) Double reading and guessing is also quite common in children with dyslexia. In double reading, the child reads a word twice—first silently and then aloud. The silent reading is typically done letter-by-letter and the reading aloud—syllable-by-syllable or in whole words. Guessing is applied when the child does not recognize the word or recognizes it partially and

rather than trying to decode it (or having difficulties decoding it), just guesses, based on the context or randomly, what the word in question might be.

- (5) Lack of comprehension, both at the word and sentence levels, is also a sign of difficulties in reading acquisition.

Conceptualization

There is a distinct difference in both defining and explaining the etiology of atypical acquisition of reading and spelling in Russian between so-called Moscow and St. Petersburg schools of thought. The Moscow “logopedia school” is based on interpreting reading and spelling difficulties as manifestations of the same disability which is directly linked to the phonetic-phonological impairment of spoken language (Levina, 1940; Nikashina, 1965; Spirova, 1965). This theoretical position influenced the terminology used to signify such difficulties. Even today, the terminology recommended by the Russian Ministry of Education is directly related to the Moscow school position, so that dyslexia and dysgraphia are referred to as “нарушение чтения и письма, обусловленное фонетико-фонематическим недоразвитием речи” (difficulties in reading and writing, caused by phonetic-phonological speech impairment) или “нарушение чтения и письма, обусловленное общим недоразвитием речи” (difficulties in reading and writing, caused by general speech impairment). Yet, along with this official terminology, as early as in the 1960s, many authors started using the term “dyslexia.” The usage of this term has been rather broad, with a reference to all and any difficulties in reading and reading acquisition (Lalaeva, 1983; Liapidevskii, 1969). The current definition of dyslexia, as used in the leading textbook of logopedia, states that dyslexia is “a partial specific impairment¹¹ of the process of reading, which is caused by the immaturity of higher mental functions and is manifested in repeated consistent errors” (Volkov, 2007).

¹¹The Russian word used here, *нарушение*, has a direct translation of *violation*.

The current definition of dysgraphia refers to is as “a partial specific impairment of the process of writing” (Volkov, 2007).

The position of the Leningrad (St. Petersburg) clinical-psychological school (Isaev, 1982; Isaev, et al., 1974; Kornev, 2003) is different. This approach differentiates specific difficulties in reading from nonspecific difficulties (i.e., caused by intellectual or sensory deficiencies). Dyslexia is viewed as a manifestation of challenged developmental pathways (or dys-ontogenesis). Thus, dyslexia is only “the tip of the iceberg,” and its foundation is in the “mismatched” development of verbal and nonverbal abilities coupled with a lack of social-emotional maturation (Kornev, 1995, 2003). Notably, from this point of view, the issue of comorbidity is interpreted as an expected, systematic manifestation of dys-ontogenesis (Sukhareva, 1965). Followers of this school view dyslexia as “a condition, manifested in the consistent, specific inability to master the skill of reading, in spite of adequate intellectual and speech and language functioning and optimal schooling, in the absence of auditory and visual deficit. The core deficit in dyslexia is the inability to master syllable construction/deconstruction and the automatized recognition of whole words. Dyslexia is often manifested in deficient comprehension of written materials. The source of this condition is the challenged brain-based processes that form the functional basis of reading” (Kornev, 1995, pp. 31-32). Based on the research carried out within this approach and in accordance with the above definition of dyslexia, 5-6% of the Russian school-aged population of children suffer from this condition (Kornev, 1995). Dysgraphia in this approach is defined as a consistent difficulty in mastering the skill of writing based on its orthographical principle (i.e., based on phonetic-phonological principles of spelling) in spite of adequate intellectual and speech and language functioning and optimal schooling, in the absence of auditory and visual deficit (Kornev, 1995, 2003). Dysgraphia is characterized by repeated consistent errors, the most frequent among which are consonant substitution, accented vowel substitution, and letter omission.

Individuals with Dyslexia in Russia

The rights of individuals with dyslexia (or other learning disabilities) in Russia are easier to understand while considering the historical progression of special education in Russia. In tsarist Russia, the first specialized schools for children with special needs were established in the early 19th century. Thus, in St. Petersburg, a school for deaf children was opened in 1806, and a school for blind children in 1807. A school for children with intellectual disabilities was opened in 1884 in St. Petersburg and in 1908 in Moscow. The first country-wide document legalizing the right to education for all children was issued in 1930 (Закон о Всеобуче, *Education for All Act*); these documents addressed the needs of all children, including those with developmental disabilities. Based on this law, all children who were able to learn, regardless of their individual learning needs, were to be educated in the same inclusive classrooms. All children who were unable to learn (i.e., uneducable children) were separated into a special category to be educated in special schools (Malofeev, 2000). Subsequently, a third category of schools appeared—schools for educable children with special needs (i.e., for those children who had pronounced learning differences, but previously were educated in regular schools); these schools were referred to as вспомогательные школы (auxiliary schools). For example, in Leningrad, in 1956 the first school for children with speech and language disorders was opened. Similar schools were opened in a number of cities throughout the country (e.g., Moscow and Sverdlovsk); simultaneously, a chain of specialized kindergartens was established. Finally, in the 1970, a network of schools for children with mild and moderate intellectual disabilities was developed. Thus, by the late 1970s, the USSR had a system of preschool- and school-aged institutions that admitted children with (1) deafness; (2) hearing impairments; (3) blindness; (4) visual problems; (5) severe speech and language disabilities; (6) severe motor development problems (e.g., cerebral palsy and scoliosis); (7) ZPR (see above); and (8) mental retardation.

In the 1990s, the system of general education was modified to introduce specialized classes for children with ZPR and for children with mental retardation (MR). In general, the dynamics are such that a portion of the children with special needs are relocated from specialized schools into the environment of specialized classrooms in regular schools. Comparatively speaking, the largest group of children without sensory and motor difficulties who are served in specialized schools consists of children with severe intellectual disabilities. Children with ZPR are served primarily in regular schools, through specialized classrooms. Children with speech and language impairments are served primarily in specialized schools, but their numbers are substantially lower than either those children with MR or children with ZPR.

In parallel with the special education system, professional help for children with special needs is available through a network of remedial institutions such as specialized centers in children's hospitals, health plans, and psychiatric clinics. These centers are typically staffed with speech and language pathologists (logopeds, see above) and psychologists. During the last 20 years, there has been growth in the development of regional (i.e., school-district based) centers for medical-psychological-educational and psycho-social support. These centers typically have a variety of personnel (e.g., social workers, psychologists, educators) who address a wide range of problems (e.g., from family functioning to gifted and talented programming) while serving children with special needs.

Thus, a child with difficulties in speech and language acquisition has access to free remedial support from the age of 2 (at kindergarten entry or at a regular pediatric exam). Children in all kindergartens are screened for indicators of speech and language impairments and, when identified, the child and his/her family are offered an opportunity to be placed in a specialized kindergarten (again, free of charge). Specialized kindergartens and specialized classes in inclusive regular kindergartens serve children with a variety of speech and language disabilities—dysarthria, developmental aphasia, dyspraxia, stuttering, and various forms of developmental language impairment. If and when a child

with impairments is identified, a so-called medical-psychological-pedagogical committee (MPPC) is established to formally evaluate the child, comment on his/her placement, and monitor his/her progress. Such a committee typically includes a psychiatrist, a psychologist, a special educator, and a logoped. The charge of the MPPC is to diagnose¹² the child and to develop a plan for the remediation¹³ of the deficit. If remediation is not accomplished during kindergarten, this committee might recommend continuing the education of the child in question in a specialized school. If the child is remediated (or remediated enough), he/she is transferred to a regular school. In this case, depending on the profile of strengths and weaknesses of the child, the committee might give a recommendation for the child to continue working with an appropriate professional (e.g., a logoped) while in a regular school. These recommendations are often made not only in conjunction with the remediation of the existing speech and language problem, but also preventatively, to avoid the manifestation of dyslexia or dysgraphia. Yet, although there are effective models for both screening and preventive activities with regard to dyslexia and dysgraphia in Russia (Kornev, 1995, 2003), they are not systematically used or promoted. In fact, a survey of primary teachers in 2005 in Moscow indicated that only 30% of them are aware of such conditions as dyslexia and dysgraphia.

When the child is in school, his/her progress is monitored by the teachers, school psychologists and logopeds, and school administrators. If any of these professionals has concerns about the child's development, the parents are notified and, with their permission, an evaluative process unfolds whose aim is to identify the typology and source of the difficulties and issue remedial recommendations. This process is governed by an MPPC (see above) and follows the same steps, that is, diagnosis and remediation, as outlined above. Traditionally, school referrals are made from the 2nd grade up, to allow

¹²Of note here is that, traditionally, such diagnoses are made by a psychiatrist or neurologist based on a clinical evaluation substantiated by observations from other professionals on the committee. Rarely these observations include data from standardized tests.

¹³Unlike diagnosis, the remedial plan is typically developed by a special education professional, with inputs from a logoped and a psychologist on the committee.

for school adaptation, but it is possible to make a referral to an MPPC at any point of the child's schooling.

Due to the fact that there are no explicit federal or local regulations differentiating dyslexia and dysgraphia as separate categories, children with reading and writing difficulties are typically remediated through schools and classrooms for children with ZPR and speech and language disorders. There is evidence that, among children educated in these schools and classrooms, approximately 50% have difficulties with reading and writing. If, however, children with dyslexia and/or dysgraphia do not have cognitive, intellectual, or speech and language difficulties, they do not get served in the framework of special education. Yet, they often receive support from their school- or school district-based logopedists. In such cases, they are most often identified based on their dysgraphia, not dyslexia (although both conditions are highly comorbid in Russian children).

Whether in a specialized school, in a specialized classroom, or in an after-school setting (i.e., in a research or community center or in private practice), the professionals who remediate children with dyslexia and dysgraphia are logopedists. The positions of logopedists in public schools and centers are supported by the government and thus, their help is delivered to children for free.

To capture the accommodations for individuals with dyslexia and dysgraphia in Russia, we made a reference to common practices as they are presented in the literature. Specifically, when the educational experiences of children with dyslexia from 19 European countries, Brazil and the USA were compared (Bogdanowicz & Sayle, 2004), a number of alterations to classroom practices and the examination/evaluation processes emerged as critical to prevent discrimination between students with and without dyslexia. Unfortunately, only a few of these accommodations are even considered possible in Russia. Specifically, the rights of (1) not having to read aloud in front of the class; (2) not being penalized for poor handwriting or spelling; (3) using a dictionary in a classroom; (4) having more time to complete written assignments; and (5) substituting written assignments with oral assignments are

granted at the discretion of the teacher (not protected by any regulations or laws). The rights of (1) using a keyboard/computer for written assignments; (2) using a recorder to capture the content of oral presentations in place of taking notes; (3) being allowed to start a foreign language later or not at all; (4) 'hearing' question read aloud by the examiner before preparing a written response; and (5) answering orally certain questions, for example, in foreign languages, are not granted (or even considered).

What is granted free of charge and guaranteed by the Law¹⁴ (*Закон Российской Федерации «Об образовании» [The Education Law of Russian Federation], 2009*) is the rehabilitational and remedial professional support of logopedists. However, there is a caveat. This support is guaranteed to children with impairments in speech, language, reading, and writing, but only in grades 1-4, that is, in primary school. A chance to obtain such support in middle school (grades 5-9) or in high school (grades 10-11 or 12, in some schools) is limited and is highly linked to family (parent) advocacy and various circumstances (e.g., the availability of professionals in the child's district). The Russian Federation does not have any laws about special education and, thus, educational provisions for children with special needs (including those with dyslexia and dysgraphia) are not guaranteed. Moreover, there is no clear guidance at the federal level with regard to the process of identification and subsequent services for children with special needs.

¹⁴Закон Российской Федерации «Об образовании» от 10 июля 1992 г. № 3266-1 (в ред. Федеральных законов от 13.01.1996 № 12-ФЗ, от 16.11.1997 № 144-ФЗ, от 20.07.2000 № 102-ФЗ, от 07.08.2000 № 122-ФЗ, от 13.02.2002 № 20-ФЗ, от 21.03.2002 № 31-ФЗ, от 25.06.2002 № 71-ФЗ, от 25.07.2002 № 112-ФЗ, от 10.01.2003 № 11-ФЗ, от 07.07.2003 № 123-ФЗ, от 08.12.2003 № 169-ФЗ, с изм., внесенными Постановлением Конституционного Суда РФ от 24.10.2000 № 13-П, Федеральными законами от 27.12.2000 № 150-ФЗ, от 30.12.2001 № 194-ФЗ, от 24.12.2002 № 176-ФЗ)

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