

Original Papers

Polish Psychological Bulletin 2016, vol. 47(3) 265–269 DOI - 10.1515/ppb-2016-0032

Katarzyna M. Bogdanowicz Marta Bogdanowicz*

"The Good Start Method for English" or how to support development, prevent and treat risk of dyslexia in children learning English as a second language

Abstract: Children with developmental dyslexia and at its risk have difficulties in the acquisition of foreign languages, especially non-transparent English. The problems of such pupils concern various aspects of the language system but in particular relate to the ability to read and spell. The research literature dedicated to effective preventative methods and dyslexia treatment suggests that both children with dyslexia and at its risk need phonological awareness training and multi-sensory learning. It is also known that prevention and early treatment is more effective than therapeutic intervention used in older students. Experts in foreign language acquisition recommend that children have contact with longer oral texts and live language (e.g., poems and songs). A recently-published report on the methods of English language teaching in Polish primary schools shows that the lessons conducted there do not realise the majority of the aforementioned recommendations. As a consequence, they do not serve any pupils including those with dyslexia and at its risk. A method which meets most of the demands mentioned above is "The Good Start Method for English". It is a new program of teaching the English language designed for five to seven-year-olds, which at the same time ensures support for the psychomotor development of children, leading to acceleration in learning progress.

Key words: risk of dyslexia, development's support, prevention, therapy, early second language acquisition, English

The number of people with developmental dyslexia is alarmingly high, ranging from 5% to 15% of the population. Studies conducted in Poland by Bogdanowicz indicate that the problem of risk of dyslexia affects 10%–13% of children (Bogdanowicz, 2011b). Dyslexia is a neurodevelopmental learning disorder which manifests itself by difficulties in reading, spelling and acquiring other language-related skills. These problems are often unexpected in relation to other cognitive abilities of the person affected by this disorder. The majority of scientists are in agreement that the main cause of developmental dyslexia is a deficit in phonological processing and slow naming speed (Krasowicz-Kupis, 2008; Rose, 2009; Wolff, 2014). Phonological processing refers to the ability to manipulate sounds, syllables and subsyllables (i.e. the structures of words which are smaller or larger than syllables). The level of phonological processing can be assessed, for example in tasks involving phoneme or syllable synthesis and analysis. When these skills are well-developed they are the good foundation of flawless decoding¹ and encoding² new words and then connecting them in sentences and text. Developmental dyslexia is an inherited disorder which is resistant to standard teaching methods and does not pass with age. However, some symptoms can be reduced or eliminated by remedial therapy.

The term "risk of dyslexia" was introduced in Poland by Bogdanowicz (2011b) in the early 1990s. It means the increased probability that this disorder will occur later in school time. Dyslexia risk symptoms manifest mainly in language related skills and later literacy and result in psychomotor development disharmony. According to the current Ministry of Education regulations, dyslexia is a disorder diagnosed after the third class of primary

Correspondence concerning this article should be addressed to Katarzyna M. Bogdanowicz. E-mail: kb.dyslexia@gmail.com

^{*} SWPS University of Social Sciences and Humanities, Sopot

¹ "translating" strings of letters into sequences of speech sounds.

² The opposite task.

school at the earliest³. However, the risk of dyslexia can, and even should be identified earlier – before the start of formal schooling, especially before reading instruction (Bogdanowicz, 2014).

Both scientific research and practitioners' reports suggest that children with dyslexia and its risk have **difficulties in foreign language acquisition** (Bogdanowicz, 2011a; Jurek, 2004; Nijakowska, 2010). These problems may relate to any of the five language subsystems, namely:

- phonology (a child with dyslexia and at its risk have difficulties in discrimination and production of phonemes; similar problems may also apply to different types of accent, rhythmic and intonation patterns as well as understanding the meaning they bear);
- morphology (dyslexic children and at its risk may not understand the role of certain meaningful language units like affixes and have problems with creating new words based on the knowledge of specific word formation rules);
- lexical (pupils with dyslexia and its risk often experience difficulties with remembering and reproducing vocabulary on demand);
- syntax (dyslexic children and at its risk rarely manage well with grammar);
- stylistic (dyslexic pupils may have problems with written expression).

However, the basic problem of pupils with developmental dyslexia or with its risk is mastering reading and spelling skills (Duff & Clarke, 2011; Krasowicz-Kupis, 2008; Rose, 2009). This applies particularly to the English language, which is orthographically non-transparent, i.e. that the rules pertaining to the relationship between graphemes (letters, digraphs, trigraphs) and phonemes are inconsistent. Therefore, learning to read in the English language is more difficult than in other language systems. This was shown, among others, by the widely quoted research of Seymore, Aro, and Erskine (2003), which involved children from 14 European countries (including some with dyslexia). As a result, in this group 14 different mother tongues were represented. Despite the different age (5–8 years old) all the children were at their first year of school. The children were asked to read aloud pseudowords and real words in their native language. After a year of learning, children in most countries read the real words with a correctness of over 90% and the pseudowords, slightly worse. Somewhat weaker were Portuguese, Danish and French pupils – their correctness of reading real words amounted to just over 70%. By far the worse results came from the Scottish children, whose native language is English. At the end of the first class they could flawlessly read only one third of the English words. The reason for this was that the Portuguese, Danish and French spelling systems are relatively difficult because they are non-transparent, whereas English is by far the hardest of all. Scientific reports clearly show that children with dyslexia and at its risk are more likely than their peers to face problems with reading and spelling in the English language (Seymore, Aro, & Erskine, 2003; Wydell, 2012; Ziegler, Perry, Ma-Wyatt, Ladner, & Schulte-Körne, 2003).

A review of literature on effective **methods of dyslexia prevention and therapy** clearly indicates that:
1) both children with developmental dyslexia and at its risk need phonological awareness⁴ training (Snowling & Hulme; 2011, 2012; Torgesen, 2000), 2) an effective teaching method is the multisensory approach (Brooks, 2013; Snowling & Hulme, 2011), 3) prevention and early treatment of reading disorders in children is more effective than therapeutic interventions used with older pupils and the greatest progress is achieved before the second year of formal teaching of reading (Griffiths & Stuart, 2013).

Modern research on early second language acquisition suggests that from the beginning of learning foreign language pupils should be exposed to longer forms of live language (e.g. songs, poems, stories), thanks to which they deepen their knowledge of the structure of the language (Krasowicz-Kupis et al., 2015). However, it is worth ensuring that children have contact with good examples of use of foreign language, which later in the learning process will be the base for development of fluency and free expression in that language (Campfield & Murphy, 2014a, 2014b). The importance for children learning foreign languages to be exposed to the language rhythm has been shown in a study in which children learnt English with the use of two methods: with nursery rhymes or using other types of materials. The progress in two groups was compared. Children learning from nursery rhymes obtained better results than pupils using other types of material not only in terms of general command of the English language, but also knowledge of word order (Campfield & Murphy, 2014a, 2014b). Modern scholars have also proven that a sense of rhythm and language sensitivity are linked (Carr, White-Schwoch, Tierney, Strait, & Kraus, 2014; Moritz, Yampolsky, Papadelis, Thomson, & Wolf, 2013; Tierney & Kraus, 2013). In practice this means that children with a better-developed auditory-motor timing (reflected by beat synchronisation) are better in phonological processing tasks, which allows for the prediction of their more rapid progress in learning to read (Corriveau & Goswami, 2009; Hornickel & Kraus, 2013; Thomson & Goswami, 2008).

The standard foreign language lessons in Polish schools are designed for pupils without difficulties and they do not prepare for learning reading and writing skills. It is assumed that children who have already mastered or are mastering these skills in their native language, will acquire them in a foreign language effortlessly, without problems. At least such an approach is typical for English lessons in Poland. The recently published report "English language

³ Resolution of the Ministry of Education, 17th Nov. 2010 – reforming conditions and methods for evaluation, classification and representation of pupils and students plus procedures for tests and examinations in state schools (Dz.U. Nr 228, poz. 1491).

⁴ Phonological awareness is the ability to reflect on the phonological structure of words and make an intentional transformation of the structure based on known rules. The tasks used in assessment of phonological awareness can consist of identifying rhyming words or removal of syllables in a word.



in primary school - the process and teaching effects..." (Muszyński, Campfield, & Szpotowicz, 2015) indicates that lessons conducted in Polish schools do not fulfil any of the aforementioned recommendations, which means they are of no help, not only to pupils with dyslexia and its risk but also to the others. The mentioned results show that the teaching methods are very similar in the majority of schools. Communication in lessons is dominated by the English teacher. What varies in schools is the proportion of time spent using the foreign and the native language by the teacher. While some teachers speak practically only in English, others almost entirely use Polish. The quality of speech of the teachers using the English language leaves a lot to be desired as they mainly use short instructions with very little variations. As a result, pupils have limited contact with continuous speech and are poorly familiarised with language prosody, which adversely affects their communication skills. The recommendations of the report authors are as follows: "It is difficult to conclusively determine how much English used in the classroom is best for effective learning [...], however it was observed in the present study that significant use of the native language for communication in the lessons does not serve language learning. One of the reasons for this may be the fact that teachers are constantly informed that communication mainly in a foreign language is too difficult for pupils. In educating and training, teachers should be shown the tools and strategies which enable the use of the taught language from the earliest classes (author's emphasis) [...]. The main recommendation aimed at the rapid improvement of education practices in terms of teaching English is the introduction of [...] oral texts longer than single words, phrases or sentences (e.g. at the very beginning of language education, children's literature in the language taught). Motivation for learning languages in the youngest children should also be aroused and **maintained** until the end of the second stage of education by providing work with texts which interact with pupils' interests and present them with appropriate intellectual challenges. It is therefore worth paying particular attention to the provision of such tasks as listening comprehension and learning vocabulary, which would be motivating for the pupils - meaning an appropriately interesting subject in tasks and their level of difficulty allowing for the work within the zone of proximal development. The proportion of authentic materials should be increased: in speech - thus exposing the pupils to accent, rhythm and intonation of natural speech in the foreign language [...]. One should also bear in mind that students should be given opportunities to make longer statements as often as possible. This can be achieved already in the earliest grades through their activation with the use of songs, rhymes, nursery rhymes, dialogues, theatre plays or other tasks that involve role-playing. Encouraging students to produce longer messages may result in these skills' improvement in the whole class. Developing speaking skills in this language from an early age leads to the situation when speaking a foreign language is an integral part of the pupil's own image. As a result, older students

do not hamper to speak English." (Muszyński et al., 2015, p. 84–85).

A method which realises the majority of the aforementioned postulates and can be also recommended to pupils at risk of dyslexia, is "The Good Start Method for English" (GSM) (Bogdanowicz, Bogdanowicz, & Łockiewicz, 2015). GSM belongs to the programs of "The Good Start Method" (MDS) by Marta Bogdanowicz, which the author has been developing and improving for past 50 years. The MDS is aimed to simultaneously stimulate visual, auditory, touch and kinesthetic-motor functions, to develop the integration of all psychomotor functions the perceptual motor integration, which contribute to the process of learning to read and write (Bogdanowicz, 2000). Therefore this method can be used for prevention and treating dyslexia and its risk. The MDS's effectiveness has been confirmed in many studies (Bogdanowicz, 2014). It's worth mentioning that Émile Jaques-Dalcroze's "Eurythimcs" (Bogdanowicz, 2015) and Barbara Kaja's (1986, 1987) "Sound Symbol Method" belong to the same general category of methods for stimulating psychomotoric development. In the "The Good Start Method for English" (GSM), the same rules apply as in the other MDS programs, namely the strict combining of language units with visual, graphics and motor elements. This is expressed in the form of drawing patterns while singing and is consistent with one of the main objectives of the method: the harmonious execution of movements in a given time and space. GSM is a perfect example of a good teaching practice which ensures significant use of the English language for communication in the lessons. However, it is not a classic course of learning a foreign language at least for three reasons. Firstly, because it fulfils two functions simultaneously. On the one hand, it offers a new method of teaching English intended for small children. On the other hand, as with each Good Start Method program, it ensures support for mental and motor development (e.g. cognitive, linguistic), which raises readiness to learn, thereby increasing its efficiency. It is assumed that in accordance with pedagogical concepts contained in the works of Jan Amos Comenius (1592–1670) and Maria Montessori (1870–1952) effective learning is active learning, in action, involving many senses and fun activities (Bogdanowicz, 2014). The second reason for which "The Good Start Method for English. Teaching English to Young Learners and Supporting Development" (Bogdanowicz et al., 2015) is not a typical textbook for teaching a foreign language is that the language material is based on nursery rhymes. They come from a rich set of traditional songs and poems intended for small children from the UK and USA. A great advantage of these songs is that they belong to a canon of English language children's literature and at the same time it is a sample of authentic language material full of rhymes and rhythm. For many Polish children, learning nursery rhymes will be their first opportunity to become acquainted with British and American culture. The melodies are pleasant to the ear, happy and the texts – full of humour. The nursery rhymes selected by the authors touch on subjects of interest to children, associated with

Katarzyna M. Bogdanowicz, Marta Bogdanowicz

their surroundings (e.g., jelly on a plate, sailing on a boat, rainfall, animals). The songs are therefore attractive to pupils and motivate them to participate in the lessons. For the GSM program, songs with a simple language structure were chosen, containing multiple repetition of simple words, syllables, including onomatopoeic elements, making it easy to remember and sing songs (saying the words). Thirdly, GSM differs from traditional foreign language learning courses in that graphic patterns are matched with the nursery rhymes and the order of the songs is decided by the pattern's complexity. Therefore, the language material has not been sorted in accordance with the principle of a gradual increase in the level of difficulty and each lesson is not related to the previous one in accordance with the spiral approach in curriculum.

The organisation of lessons based on GSM foresees for the carrying out of approximately one 45-minute class a week. However, the classes can be shortened or lengthened if the children show the desire to continue drawing and it does not exceed the possibility of the participating pupils. Occasionally it is recommended to omit certain forms of exercises, for example when the activity is in the air or on the table. Children should be encouraged to submit their own proposals and implement them, even though they were not included in the script. Most often this is by embellishing the graphic design the pupil had drawn or creative transformation of a pattern into an picture by giving the pattern a particular shape and adding humorous elements.

Given the fact that nursery rhymes are difficult to remember during one lesson for Polish young learners (Krogul, 2013; Szatkowska, 2015), two consecutive lessons are planned with the same song. However, a different scenario together with pattern is prepared for each lesson. As a result, each song is combined with two scenarios and two patterns. If two lessons are not sufficient for the children to learn the song, the teacher can organise additional meetings, choosing a new graphic pattern and develop a new lesson plan based on the scheme published in "The Good Start Method for English. Teaching English to Young Learners and Supporting Development" (Bogdanowicz et al., 2015).

The graphic materials used in the GSM contain dots, lines and geometric figures. The child's attention is focused on learning the song, so the graphic patterns are used mainly to facilitate this process. The assumption is that the songs and patterns can be a source of ideas both for the teachers, who based on them can develop a variety of tasks during the lessons, and for the children themselves.

The illustrations contained in the GSM relate to the content of the songs. A pattern is drawn in the picture, making this abstract shape a sign of particular importance, for example a circle symbolizes a plate. During the *introductory exercises* and *motor-auditory-visual activities* illustrations facilitate conversation on topics related to the song, prompt semantic association helping to remember and reproduce the pattern (e.g., wavy lines as waves or circles showing the edge of the plate). The proposed lesson program can be used in a group of five to seven-year-olds,

i.e. children in kindergarden or first and second graders who are starting to learn a foreign language. It can also be used for teaching English to children at risk of dyslexia. These pupils, due to their language deficits, not only have difficulties in mastering their mother tongue, but also in learning foreign languages. Children with below normal intelligence can also benefit from GSM. However, it should be significantly simplified and adapted to their special needs. The exercises should be regularly revised. This program can be incorporated into remedial classes or used with children who have difficulties in learning English, regardless of their cause. It is also worth noting that the method in its present form does not account for learning to read and write in English but includes preparation to acquire these skills.

To sum up, GSM lessons, in which nursery rhymes are used, should be effective not only as a tool for learning a foreign language in oral form, but also as a method of preparing children for the subsequent learning to read and write in that language through the exercise of attention and auditory-verbal memory, developing phonological awareness and drawing letter-like patterns. Some songs additionally contain proposals for physical activities, illustrating the content of the song. The children can perform them while singing. This ensures that during the lessons larger areas of the brain are engaged as well as other parts of the central nervous system, therefore more mental functions are involved and interact during the realisation of these tasks. This approach to learning facilitates the memorizing of verbal material, as in any case when there is multisensory learning.

References

Bogdanowicz, E. (2015). Rytmika Emila Jaques-Dalcroze'a w edukacji i terapii dzieci z symptomami nadpobudliwości psychoruchowej [Émile Jaques-Dalcroze's Eurythimcs in education and therapy of children with hyperactivity syndrome symptoms]. Katowice: Wydawnictwo Uniwersytetu Ślaskiego.

Bogdanowicz, K. M. (2011a). *Dysleksja a nauczanie języków obcych.*Przewodnik dla nauczycieli i rodziców uczniów z dysleksją [Dyslexia and the teaching of foreign languages. A guide for teachers and parents of students with dyslexia]. Gdańsk: Wydawnictwo Harmonia.

Bogdanowicz, M. (2011b). Ryzyko dysleksji, dysortografii i dysgrafii [The risk of dyslexia, dysgraphia and dysorthography]. Gdańsk: Wydawnictwo Harmonia.

Bogdanowicz, M. (2014). *Metoda Dobrego Startu we wspomaganiu rozwoju, edukacji i terapii pedagogicznej* [The Good Start Method in supporting development, education and remedial teaching]. Gdańsk: Wydawnictwo Harmonia.

Bogdanowicz, M. (2000). *Integracja percepcyjno-motoryczna. Teoria*- diagnoza - terapia [The perceptual motor integration. Theory - diagnosis - treatment]. Warszawa: Centrum Metodyczne Pomocy Psychologiczno-Pedagogicznej.

Bogdanowicz, M., Bogdanowicz, K. M., & Łockiewicz, M. (2015). The Good Start Method for English. Teaching English to Young Learners and Supporting Development. Gdańsk: Wydawnictwo Harmonia.

Brooks, G. (2013). What works for children and young people with literacy difficulties? The effectiveness of intervention schemes, The dyslexia-SpLD Trust. Access on 01.02.2016: http://www.interventionsforliteracy.org.uk/widgets_GregBrooks/What_works_for_children_fourth_ed.pdf

Campfield, D. E., & Murphy, V. A. (2014a). Elicited imitation in search of the influence of linguistic rhythm on child L2 acquisition. System:



- An International Journal of Educational Technology and Applied Linguistics, 42, 207–219.
- Campfield, D. E., & Murphy, V. A. (2014b). The influence of prosodic input in the second language classroom: does it stimulate child acquisition of word order and function words? *Language Learning Journal*, 42, 1–19. http://www.tandfonline.com/doi/abs/10.1080/09 571736.2013.807864#.UtQRifvyQus
- Carr, K. W., White-Schwoch, T., Tierney, A. T., Strait, D. L., & Kraus, N. (2014). Beat synchronization predicts neural speech encoding and reading readiness in preschoolers. *PNAS*, 111(40), 14559–14564.
- Corriveau, K., & Goswami, U. (2009). Rhythmic motor entrainment in children with speech and language impairments: tapping to the beat. *Cortex*, 45, 119–130.
- Duff, F. J., & Clarke, P. J. (2011). Practitioner Review: Reading disorders: what are the effective interventions and how should they be implemented and evaluated? *Journal of Child Psychology and Psychiatry*, 52, 3–12. doi: 10.1111/j.1469-7610.2010.02310
- Griffiths, Y., & Stuart, M. (2013). Reviewing evidence-based practice for pupils with dyslexia and literacy Difficulties. *Journal of Research in Reading*, 36, 96–116. doi: 10.1111/j.G1R46IF7F-9IT8H17S.2a0n1d1S.0T1U4A95R.T
- Hornickel, J., & Kraus, N. (2013). Unstable representation of sound: A biological marker of dyslexia. *Journal of Neuroscience*, 33, 3500–3504.
- Kaja, B. (2001). Zarys terapii dziecka: metody psychologicznej i pedagogicznej pomocy wspomagającej rozwój dziecka [The outline of child's therapy: psychological and educational method of help supporting child's development]. Bydgoszcz: Wydawnictwo Uczelniane Akademii Bydgoskiej.
- Kaja, B. (1987). Problemy diagnozy i terapii zaburzeń rozwoju u dzieci w wieku przedszkolnym [Problems of diagnosis and therapy of development disturbances in children at kindergarten age]. Wyższa Szkoła Pedagogiczna w Bydgoszczy. Bydgoszcz: Wydawnictwo Uczelniane WSP.
- Krasowicz-Kupis, G. (2008). Psychologia dysleksji. [Psychology of dyslexia]. Warszawa: PWN.
- Krasowicz-Kupis, G., Kochańska, M., Bogdanowicz, K. M., Wiejak, K., Campfield, D., Łuniewska, M., & Haman, E. (2015). Jak nauczyciel może wspomagać rozwój dzieci z zaburzeniami językowymi i ryzykiem zaburzenia uczenia się? Wybrane zagadnienia [How the teacher can support the development of children with language disorders and learning disorders risk? Selected issues]. Access on 19.12.2015: http://eduentuzjasci.pl/images/stories/publikacje/ibeee-poradnik-jak-nauczyciel.pdf
- Krogul, A. (2013). Modyfikacja Metody Dobrego Startu a rozwój psychomotoryczny i umiejętności w zakresie języka angielskiego u dzieci w wieku przedszkolnym [Modification of Good Start Method, psychomotor development and skills in the English language in preschool children]. Unpublished master's thesis, Institute of Psychology, University of Gdańsk.
- Moritz, C., Yampolsky, S., Papadelis, G., Thomson, J., & Wolf, M. (2013). Links between early rhythm skills, musical training, and phonological awareness. *Reading and Writing*, 26 (5), 739–769.
- Muszyński, M., Campfield, D., & Szpotowicz, M. (2015). Język angielski w szkole podstawowej – proces i efekty nauczania. Wyniki podłużnego badania efektywności nauczania języka angielskiego (2011–2014) [English in primary school – the teaching process and

- outcomes. The results of the longitudinal study of teaching English effectiveness (2011–2014)]. Access on: 19.12.2015: http://eduentuzjasci.pl//images/stories/publikacje/IBE-raport-Jezyk-angielski-w-szkole-podstawowej-proces-i-efekty-nauczania.pdf
- Jurek, A. (2004). Trudności w nauce języków obcych uczniów z dysleksją rozwojową [Difficulties in learning foreign languages in students with developmental dyslexia]. In M. Bogdanowicz, & M. Smoleń (Eds.), Dysleksja w kontekście nauczania języków obcych [Dyslexia in the context of foreign language teaching] (pp. 98–116). Gdańsk: Wydawnictwo Harmonia.
- Nijakowska, J. (2010). *Dyslexia in the Foreign Language Classroom*. Bristol: Multilingual Matters.
- Rose, J. (2009). Identifying and teaching children and young people with dyslexia and literacy difficulties. An independent report from Sir Jim Rose to the Secretary of State for Children, Schools and Families, [Access on 01.02.2016: http://webarchive.nationalarchives. gov.uk/20130401151715/http://www.education.gov.uk/publications/eOrderingDownload/00659-2009DOM-EN.pdf].
- Seymour, P. H. K., Aro, M., & Erskine, J. M. (2003). Foundation literacy acquisition in European orthographies. *British Journal of Psychol*ogy, 94, 143–174.
- Snowling, M. J., & Hulme, C. (2012). Interventions for children's language and literacy difficulties. *International Journal of Language & Communication Disorders*, 47, 27–34. doi: 10.1111/j.1460-6984.2011.00081.x
- Snowling, M., & Hulme, C. (2011). Evidence-based interventions for reading and language difficulties: Creating a virtuous circle. *British Journal of Educational Psychology*, 81, 1–23. doi: 10.1111/j.2044-8279.2010.02014.x
- Szatkowska, J. (2015). Skuteczność Good Start Method w wersji poprawionej w aspekcie językowym i rozwojowym [The effectiveness of Good Start Method in the revised version in terms of language and development]. Unpublished master's thesis, Institute of Psychology, University of Gdańsk.
- Thomson, J. M., & Goswami, U. (2008). Rhythmic processing in children with developmental dyslexia: auditory and motor rhythms link to reading and spelling. *Journal of Physiology*, 102, 120–129.
- Tierney, A., & Kraus, N. (2013). The ability to Move to a Beat Is Linked to the Consistency of Neural Responses to Sound. The Journal of Neuroscience, 33(38), 14981–14988.
- Torgesen, J. K. (2000). Individual Differences in Response to Early Interventions in Reading: The Lingering Problem of Treatment Resisters. *Learning Disabilities Research & Practice*, *15*, 55–64. doi: 10.1111/j.1469-7610.2010.02329.x
- Wolff, U. (2014). RAN as a predictor of reading skills, and vice versa: results from a randomised reading intervention. *Annals of Dyslexia*, 64, 151–165. doi: 10.1007/s11881-014-0091-6
- Wydell, T. N. (2012). Cross-Cultural/Linguistic Differences in the Prevalence of Developmental Dyslexia and the Hypothesis of Granularity and Transparency. In T. Wydell (Eds.). *Dyslexia a Comprehensive and International Approach*, ISBN: 978-953-51-0517-6, InTech, Available from: http://cdn.intechopen.com/pdfs-wm/35802.pdf.
- Ziegler, J. C., Perry, C., Ma-Wyatt, A., Ladner, D., & Schulte-Körne, G. (2003). Developmental dyslexia in different languages: Language-specific or universal? *Journal of Experimental Child Psychology*, 86, 169–193. doi: 10.1016/S0022-0965(03)00139-5