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Creating the programs for children with delayed school attendance in kindergarten

**Tworzenie programów edukacji przedszkolnej
dla dzieci z odroczonym obowiązkiem szkolnym**

Abstrakt: Tekst skupia się na rozwoju świadomości fonetycznej i możliwościach wczesnego wykrywania (już w przedszkolu) symptomów trudności w uczeniu się. Autorzy podali analizę różnego rodzaju ćwiczenia służące rozwijaniu umiejętności czytania i pisania.

Słowa kluczowe: świadomość fonetyczna, trudności w uczeniu się.

Introduction

The recommendations of the European Parliament and the European Council on key competences for lifelong education were transferred in Slovakia into the documents introduced in the 2008 school reform. Major changes in the content of preschool education were materialized in Act no. 245/2008 Coll. on education (Education Act) where kindergartens were placed into the school system in accordance with the international classification of education ISCED (International Standard Classification of Education). The State Education Program for Preschool Education ISCED 0 — Child and the World (2008) (*Štátny vzdelávací program. ISCED 0...*) became the target and the culmination of the educational reform legislation in the area of kindergarten education. It is the highest curricular document in the two-level curricular education program model. The State Education Program defines the main objectives of preschool education, which is “to achieve an optimum emotional, social and cognitive level as a basis for school education and life in society. The child’s uniqueness, active learning and integration into the group and class are the elementary starting points” (*Štátny vzdelávací program. ISCED 0..., p. 5*).

The following competences are defined for the preschool age by the ISCED 0 State Education Program:

1. Psychomotor competences.
2. Personal (intrapersonal) competence:
 - a) elementary self-awareness,
 - b) elementary engagement.
3. Social (interpersonal) competences.
4. Communicative competence.
5. Cognitive competence:
 - a) elementary problem solving,
 - b) elementary critical thinking,
 - c) elementary creative thinking.
6. Learning competence. Information competence.

From the viewpoint of vulnerable and marginalized groups and in line with the reform of legislative and curricular documents, the verge of the 20th and 21st century paves the way for the pursuit of modern preventive speech therapy and special pedagogical practices that take place in a clinical advisory environment or preschool environment. Concerns mainly the procedures coming from the levels of knowledge of ontogeny of speech and its linguistic-cognitive determinants. Currently we have enough knowledge to create auxiliary therapies and preven-

tive and educational activities for pupils who are learning disabilities prone.

Literacy in the preschool period

In modern literature we can find various types and concepts of literacy that are discussed particularly in relation to the efficiency of educational systems. The current understanding is based on empirical knowledge of the foundations of literacy and the specifics of ontogenetic cognitive roots and deeper knowledge of reading, writing and language use. In Slovakia, the practical models of literacy were analyzed in detail by Gavora (2003) and Zápotocná and Petrova (2010). The terminological and conceptual transformation of literacy is applied in educational and curricular documents. In the context of preschool education, two groups of empirical knowledge are important: (1) analysis of basic and emerging literacy, and (2) knowledge of mechanics of how early skills (pre-literacy skills) affect the formation of literacy and better academic success. The training of phonemic awareness created by D.B. Elkonin (Mikulajová, Dujčíková, 2001) is an example of successful intervention and preventive methods based on clearly defined mechanisms of ontogenesis of speech and thought, and also a reflection of the current status of key metalinguistic language skills in preparation for reading.

Basic literacy is historically the oldest form of literacy and it is understood as the ability to read and write. Reading is seen as a psycholinguistic skill, implemented as decoding of meanings (conf. Gavora, 2003, pp. 11—23). When practicing reading and writing, emphasis is put on the automation of decoding, however, not much emphasis is put on content analysis of text and its deeper interpretation. Functional literacy — reading and writing is seen as a literacy competence enabling the processing of information in the text and its use to deal with life situations. Information retrieved in this way is used to solve practical problems and fulfill the broad needs of man.

J. Průcha, E. Walterová, J. Mareš (2008, p. 67) define functional literacy as “the ability to use printed and written material to meet the broad needs of a person”. According to this model, literacy as a socio-cultural phenomenon is not universal and neutral, but rather specific and always tied to a particular culture. It emphasizes the practical aspects of teaching reading and writing using authentic texts (use of written communication), which is closer to everyday life.

Literacy takes many forms and is influenced by several factors. It is determined by different social phenomena and related to education, training, social and cultural environment and economy. A number of scientific disciplines (linguistics, psychology, pedagogy, etc.) emphasize and observe other traits of literacy and understand it as a concept that can be assessed in several ways. Currently, the focus is on the effort to analyze the development of literacy not only in terms of school education, but to merge the knowledge from several different disciplines and characterize it comprehensively.

If we were to discuss Slovakia, the analysis of problem areas in literacy of school and adult populations shows a few facts: in cross-national comparisons of literacy tests, younger pupils achieved much better results than older pupils, a very small percentage of students reached the highest limit of literacy, we have a very high degree of students leaving elementary/primary schools without reaching the minimum threshold in the PISA tests — endangered by functional illiteracy.

Approaches to developing preliteracy in preschool children

Emerging literacy is a process that develops in certain stages in which the children acquire language in its various forms on the basis of their cognitive abilities and experience. The fundamentals for developing literacy is the stimulation of children in their natural environment. Family is the very first environment where the beginnings of reading and writing develop. Parents are the first ones to convey a written text and contact with books to a child. From a very young age, children watch and imitate parents reading books, newspapers, magazines, work with computer programs, communicate via email, etc. The communication with children in the family significantly affects the development of literacy in the preschool period. Preschool educational activities link to the developmental dispositions of the family and the child's educational interests, which in turn further develop his/her reading and writing predispositions. Currently, approaches focusing on the natural, meaningful ways and forms of literacy development at preschool age are being foregrounded. The different approaches are based mainly on theories of personal and social constructivism.

Encouraging early reading and writing in preschool children is discussed in detail by Lipnická (2009, p. 84), whereby the following

methods can be used to stimulate early literacy: "promote creativity and imagination of children in discovering reading and writing; explain to children the obscure concepts in spoken and written forms, mediate their learning about things, phenomena and facts; actively respond to the reading and writing interests of children; read and write various texts to children; provide them with a choice of several themes, genres, encourage in children creative drawing and writing; show interest in their drawings; show respect for errors and imperfections in their reading and written output; play games to develop language and speech as much as possible; write down the rules and results of games; provide opportunities for engaging with texts related to the orientation in temporal and spatial relations; visit a public library with children's books; create the opportunity to present finished and unfinished drawings, written texts and other creative products for children to get the feeling that they can continue to perform these activities."

The above highlights the need to create a rich literate environment for children. It is important for children to have access to books, magazines, boardbooks, notices, banners, etc. to provide them with sufficient written and printed material. It is also important to give children the opportunity to express themselves in writing by providing them with pens, paper and material for the production of books and magazines. This material should be accessible to the child through the course of a day so it can be used at his/her discretion.

Glen Doman's method (Pielinska, 1995/1996, p. 7), also known as "Reading without letters" can be used as an alternative approach in preparing preschool children for reading. The author holds that children 5 years old and younger are able to absorb a lot of information due to their strong desire to learn. Already 3- to 4-year-olds can read using a systematic global method of working with sets of words that are ranked according to their complexity. With their constant repetition the child becomes visually aware of the differences while practicing articulation, hearing and verbal communication. Glen Doman was convinced that an early start in reading creates more time for the child to improve reading techniques.

J. Kaderavek and L. Justice (2004) listed various ideas for the creation of specific educational preliteracy activities and preventive-intervention programs for the preschool environment for children with impaired communication ability. We present them on the following pages in a modified format:

Table 1

**Areas and examples of activities to develop the preliteracy program
by J. Kaderavek and L. Justice (2004) (modified by E.Ž.)**

Areas	Educational objectives	Activities — examples
1	2	3
Phonemic awareness	distinguish words in a sentence	let the children clap out every word in a poem
	divide words into syllables	clap out syllables
	combine sounds and syllables into words (synthesis)	the teacher uses a puppet — a robot — who speaks in syllables (motor-cy-cle); another doll only speaks using single sounds; in the TPU program, butterfly-shaped cards, the so-called <i>Hlásulienky</i> , representing the individual sounds are used (conf. Mikulajová, Dujčíková, 2005)
	create rhymes	read poems and rhymes where children fill in the missing words that rhyme
	identify words with same beginning or ending	when reading, rhyming is associated with movement in the same syllables (clap, step, non-verbal signals)
Knowledge of written/printed word	knowledge of the rules for reading books	the teacher sometimes turns the book upside down and the children are supposed to correct her
	understand metalingual expressions (word, rhyme, syllable, sound, written symbol)	adults demonstrate the features of books (look how long the word is, e.g. 'earthworm' is longer than 'snake')
	identify print in different environments	images and photographs of letters and inscriptions, which can be captured by children when walking
	link experience and text	questions about own experience and understanding: "What would you do?", "Have you cooked anything yet? What materials did you use?"
Knowledge of the alphabet	knowledge of alphabetic poems and songs	pointing at written symbols/letters (flash cards or in a book) when reciting or reading alphabetic texts
	recognize one's own name and its letters	in addition to the pictures, the children should have their name printed on the cabinets, mugs, towels, clothes and so on

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1	2	3
	recognize the letters in their neighborhood	children receive flashcards with letters to look for during a walk or trip
	recognize capital and normal letters	toys are labeled with letters and children sort them into boxes
	write one's own name	create as many opportunities for children to sign themselves as possible (flashcards, postcards, drawings, compose their name out of plastic letters, writing names into electronic games)
Narrative and literary language	paraphrase a story	the children have to repeat the story with little help
	using causal connections when talking	we ask children about the individual stages of a story and we teach them to use cause-effect words such as since, therefore, etc.

Risk groups among the preschool children

The kindergarten environment is a meeting place for children from different socio-cultural backgrounds, having different knowledge, skills and behavior. A milestone is the understanding of patterns of language development. Daily contact with kindergarten teachers creates enough opportunities for understanding the idiosyncrasies of every child. During each activity the teacher has the opportunity to see how a child works, behaves and what the level of his/her knowledge is. From a professional viewpoint, the teacher can identify the early signs of difficulties in cognitive, motor and social areas, which can affect the learning process in the school age. Children with shortcomings in the above areas can be included in the "risk group". According to O. Zelinková (2001, p. 112), the concept of a "risk child" is mainly used in foreign literature to describe the individuals and groups of children who for whatever reason are expected to fail at school. It can also include underprivileged children of parents from poorly stimulating family environments, ethnic minorities, children with speech impairments, children with the risk of learning disabilities and so on. The tag "risk child" should not be construed as a label but rather as a signal to increase attention.

Preschool risk groups in relation to specific developmental learning disorders

Educational diagnosis at preschool age can contribute to the detection of children at risk for the occurrence of specific developmental learning disorders. Although these disorders can be diagnosed only when the child learns to read and write, several authors emphasize the early identification of incremental deficits in motor and perceptual areas where specific developmental learning disorders can develop under certain conditions as early as in the preschool period. At this age, it is impossible to talk about children in terms of specific developmental learning disorders but in terms of expectation or risk of school age specific developmental learning disorders. E. Žovinec (2006, pp. 73—74) details the detection of children at risk, emphasizing three periods in which it is possible to detect warnings or symptoms:

- at the early age (age 3—4), especially in children with atypical development of language, deficits may occur in the narrative skills, vocabulary, understanding speech and sense of language;
- at preschool age (age 4—6) in the preliteracy and emerging literacy period, problems in phonemic awareness (rhyming, analysis and synthesis of words into sounds and syllables, isolation of the first and last sound in a word, elision of vowels), problems with sense of language (repetition of phrases, syntactic and morphological problems), problems with short-term and working memory, problems in seriality and other partial cognitive areas;
- at early school age (age 6—7) in emerging literacy period, problems with memorizing the letters, synthesis of vowels and syllables into words and writing.

Preschool age is an important period for detecting deficits associated with the later emergence of learning disabilities, although it is termed a “presymptomatic” period. Experience suggests that it is much more successful to pay attention to the development of children in the preschool age than to wait until the problems arise in the school age when they are often associated with psychological implications.

It is important to pay attention to the individual weakening in the development of a child at the early and preschool age when the specific learning disabilities can still be predicted. The preschool period can provide scope for early intervention that may help solve many of the consequent difficulties in primary school children. The teacher should be attentive to the childrens' problems, and also sensitive to their needs.

Impaired communication ability as a risk factor in preschool children

By using pedagogical diagnosis, we can identify individuals with a weakened potential individual communication and speech disorders in the preschool age. In kindergarten, one can meet children whose creativity and variations in speech are natural and disappear without any intervention, e.g. poor pronunciation of certain speech sounds. Some disorders may have a broader developmental context (birth defects) and require specialist treatment, rehabilitation and correction. Retardation and language impairment/variation differs in severity and it may cause further complications.

Risk groups of children from socially disadvantaged backgrounds

A large group of children at risk who can be encountered in kindergarten are children from socially disadvantaged backgrounds. To define a socially disadvantaged environment in which the child does not have enough incentives for its development is difficult and very problematic. It can follow from the economic and social welfare of the family, methods of family education and environmental influences. The 2008 Education Act defines children and pupils from socially disadvantaged backgrounds as children who grow up in an environment where the social, family, economic and cultural conditions understimulate the development of their mental, volitional and emotional characteristics, hinders their socialization and provides them with inadequate incentives for personal development.

The preschool age is a significant period of intensive development at the physical, mental and intellectual level. Education and training in this developmental period contributes to the development of the child's personality, literacy and educational level. Family education is enriched by the preschool education in kindergarten, which provides the children with a stimulating environment and planned educational activities for a comprehensive development of his/her personality. It also has diagnostic capability for an early detection of risk factors that may cause deficiencies and defects in the child's development.

Phonological skills as a predictor of specific developmental learning disorders

Early risk signs are primarily associated with impaired development of language, deficits in sense of language, weaknesses in narrative skills, working memory impairments and attention. In most cultures with alphabetic languages, the deficits in these areas are known to be the core of dyslexia (Žovinec, 2010, p. 148). Phonemic awareness deficits can be regarded as a unifying factor in the emerging literacy problems in all the above risk categories. It should be noted that the deficits in phonology are not only associated with the consequent problems in decoding (reading speed and accuracy) and spelling (principle of phonemic spelling), but they also have negative effects on the overall development of reading and writing. Deficits in phonology tend to be linked with the deficiencies in working memory, which in turn affect the accuracy of reading comprehension. The phonemic awareness is the ability to recognize individual phonemes and realize that they are represented by alphabetical letters or symbols. The skills that enable us to perceive phonological elements of speech include the ability to recognize rhyme, compare and distinguish sounds in the word (e.g. whether two words start with same sound), perform phonemic identification and manipulation of phonemes. The child's task is to realize that words can be divided into smaller units, determine the vowel at the beginning and end of words, analyze words into sounds and syllables and combine them or manipulate them differently.

One of the first authors who pointed at the relationship between phonemic awareness and the ability to learn to read and write is D.B. El'konin who created an original method of reading development. M. Mikulajová, O. Dujčíková (2001, p. 6) adapted and modified the first part of El'konin's primer and developed a phonemic awareness training methodology a priori designed for children with impaired ability to communicate, published in 2001 and entitled *Training phonemic awareness* by D.B. El'konin. O. Zápotočná (2001, p. 5) finds this methodology to be a unique teaching aid and an original approach to practicing awareness of phonemic structure of words as a vital precondition for acquiring written form of language.

The development of phonological abilities in children progresses from the awareness of larger phonological units to the division of words into individual phonemes. The child initially perceives the word as a unit, it can break it down into syllables in the preschool age, at about 5 it is

able to single out its first sound and progressively isolate individual phonemes. Even the children of preschool age show significant variations. While some four- year- olds can perform the phonetic analysis without any problems, others have problems to identify the first and last vowel in the word at the end of preschool education.

M. Mikulajová (2001) describes the development of phonological awareness in the following five stages: an ear for rhymes (at the age of 3); awareness of speech segments, alliteration in rhymes (same beginning and end); hyphenation of words into syllables (preschool age); complete isolation of all phonemes in the words that are not too demanding from the viewpoint of articulation (end of preschool period); consciously manipulating the phonemes — omission, slip, substitution of speech sounds (to be developed at school age when the child learns to read and write).

The preschool period is appropriate for the development of phonemic and phonological awareness as a preparatory stage for acquiring literacy. In younger children, rhymes and short poems are used — children learn to spontaneously identify similarities and differences between the sounds in a word. To assess the level of phonemic differentiation the teacher can use pictures with words that have a changed phoneme, e.g. pill — mill, toad — road and the like. It is also appropriate to use rhymes, whether mutually rhyming matching words, or producing them (the teacher says a word, the child's task is to find a rhyme to it). In older preschoolers, it is important to use targeted exercises systematically developing other levels of phonological and phonemic awareness. This mainly concerns the creation of ideas about the word where children are gradually introduced to the syllabic structure of words. The teacher can use clapping out and tapping out of syllables, their rendering with Orff instrumentation and visual diagrams. Via targeted development, children learn to single out individual sounds, identify the number of sounds in words and consciously manipulate the phonemes in words. Skipping syllables, swapping individual phonemes and synthesis of initial consonants of words into new words are the most difficult tasks for preschool children.

To practically examine phonemic differentiation, a specially modified test *Evaluation of phonemic hearing in preschool children* by E. Cas, F. Michka and M. Moravcová (1995) is used in special pedagogy. Phonemic differentiation requires the ability to distinguish all sounds in an acoustic word in their proper sequence, which allows the child to properly understand the meaning of words and also becomes a milestone for the acquisition of literacy. If a child cannot correctly distinguish certain sounds in an acoustic word, this limitation will be reflected in converting the words into their acoustic and written form, which may effect a chan-

ge in word meaning. This is a relatively widespread test used mainly in counseling without the publicity of developmental standards. Of the original 60 word couples, a shortened version with 25 pairs of words is used, varying in one distinctive sound. The words were enriched by pairs of images and, based on verbal instructions, the child's task is to choose the respective image to the acoustic word. The aim of the test is to monitor whether the child is able to distinguish between the words on the basis of the changed phoneme.

The following distinctive phonemic features are considered in the test: long — short (e.g. kill — keel); voiced — voiceless (e.g. goat — coat), nasal — non-nasal (e.g. king — kin), soft — hard (e.g. sit — shit); compact — diffused (e.g. bill — bull).

The child is presented with a set of sorted cards showing only the first pair of images. The child is told only one word from the pair of images and its task is to show the word it hears.

To determine the level of phonological abilities, the “phonemic awareness screening” method is used. The test consists of 9 groups of questions, each containing 5 questions. The individual groups of questions are aimed at assessing the ability to recognize and handle larger phonological units, mainly rhymes, syllables and phonemic awareness. In particular, it focuses on the following areas of phonological awareness: awareness and production of rhyme, syllable analysis and synthesis, isolation of the first syllable, skipping syllables, isolation of the first sound, synthesis of vowels into words, analysis of words into phonemes. These areas are also the foundation for creating support programs for children with the risk of developing learning disabilities.

Conclusion

We believe that in addition to the “traditional” partial language-cognitive, perceptual-motor skills with the dominance of phonemic skills, every program must contain elements of human experience in communication, convey a sense of oral and written communication, its history and diversity of situations, which are becoming ever so broad thanks to ICT. Finally, let us introduce a draft of a preventive incentive training scheme by J. Barloková, which is currently developed in collaboration with the Department of Education, CPU Nitra, and it is in the phase of experimental testing.

Table 2
A draft of preventive incentive training scheme (Barloková, 2011)

Educational activity 7	“Who lives at the house?”
Educational objective	Development of the understanding of words by means of syllabic analysis.
Educational strategy	Division of words into syllables, painted reading.
Competences	Division of words into syllables on the basis of phonemic hearing.
Educational activities	<p><i>“Children, do you remember our friends Danka and Janka? And maybe you remember the tale of how Danka and Janka went to see their grandmother who lives in the village. They also went to see the small new-born calf they named Star. The grandmother not only breeds cows, but also other domestic animals. Do you know the animals that live in the village? True enough, when they all start chattering in the yard, it is a decent cry”</i> (I will use painted reading, the children's task is to add the missing words):</p> <p>..... (cat) miaows, barks (dog) yesterday, tomorrow and even today. (cow) moos, bleats (goat) and both love to chit-chat. (hen) clacks loud, she has nothing to put in the bill. (chick) beeps (ducks) quacks, it is going to be a breeze. (pig) squeals like heck, it is hungry for some food.</p> <p>An old neighs in the stable (horse) that this house is quite noisy. The children clap the names of domestic animals by the syllables and identify the first syllable in every word. At the same time they use a syllabic chart (U, UU, UUU) to better understand short and longer words. I remind them that a short word has a few sounds (dog, cat) and it can be said quickly. A longer word has more sounds and it is pronounced longer. Short words can be used to manufacture longer ones, e.g. the names of young animals are typically longer. When we create the names of young animals, we use a graphical diagram (e.g. cat — kitten, dog — puppy).</p>
Evaluation	Finally, the children play the game “Who lives at the house?” They sit down on the carpet and each is given a picture of a young animal. The houses located on the MT contain images of domestic animals, we gradually open the houses and look for the respective young animals. The children's task is to properly clap out the pet and cub name, determine the number of syllables and the first syllable in a word.
Recommendation	<p>Children (from the risk group) become aware of the importance of text. Nearly 75% of them completed the tasks based on the activity. By repeating the activity, the children improved their vocabulary. They learned to listen.</p> <p>To be used in follow-up activities. Add images. Convert to digital text and use the interactive whiteboard.</p>

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