

Metoda Krakowska®<sub>1</sub> is a neurobiological therapy method stimulating all cognitive functions in children. The basic assumption is to imitate the subsequent stages of development of healthy children in order to prepare an exercise plan for children with genetic and developmental disorders. Prof. dr hab. Jagoda Cieszyńska is considered to be the creator of Metoda Krakowska®.

The method was developed by a team of people associated with the Department of Speech Therapy at the Pedagogical University of Kraków, together with the Language Diagnosis and Therapy Team (currently: Early Support Team at the Centre for Deaf Children). The team is headed by Prof. dr hab. Jagoda Cieszyńska.

In late eighties, the Kraków Diagnosis and Therapy Team had already been studying the language system of deaf children based on early reading. The studies resulted in the fact that more and more children with other developmental disorders who had difficulties in developing linguistic communication skills went into therapy. Early reading was always accompanied by stimulation of all cognitive functions. The basic assumption was to treat the child's development and their relationship with the family (and then in the social group) holistically and to form their linguistic image of the world.

Prof. Cieszyńska stresses that Metoda Krakowska® is a comprehensive symbolic system made up of a set of elements in an inter-relationship that carries out the primary task (to create a language system) and activities that stimulate the development of all cognitive functions. Early reading and shaping the language system are the most important techniques in the entire therapy system of Metoda Krakowska®, because all seventeen elements of the therapy have language as its starting point and each subsequent element is introduced in accordance with the sequence of development and individual capabilities of the child and their family.

Metoda Krakowska® draws on the experience of experimental research on the formation of cognitive representations, as well as the processes of learning new tasks by neurons.

Metoda Krakowska® assumes that children should be provided with the knowledge they were unable to acquire on their own due to their disorders. It emphasizes the requirement for simultaneous stimulation of the development of a healthy child and correcting the functional, congenital, genetic, and acquired disorders. Its assumptions are based on the neurobiological thesis that the ability to form new synapses never ends and is fully dependent on the specific experience of the individual. Children learn social behaviors and roles mainly through language, taking active part in social interactions, but before they are ready to learn the skills and knowledge about the world in a peer group, they must interact individually with an adult.

In addition, Prof. Cieszyńska notes that Metoda Krakowska® makes it possible for the family to observe the activities organized for the children.

Mastering the skill of naming the activities, features, things, and people requires the use of a mechanism for imitating the speech development in children, that is: repetition, understanding, and naming.

A therapist using Metoda Krakowska® and their pupil work not only on developing the child's communication and language skills, but also on other cognitive functions.

<sup>&</sup>lt;sup>1</sup> Kraków Method

According to Metoda Krakowska®, one of the main elements of therapy include the Symultaniczno-Sekwencyjna Nauka Czytania®<sub>2</sub> by Prof. Jagoda Cieszyńska, which is accompanied by working on all cognitive functions in the following areas:

- hearing
- vision
- functions of the left side of the brain
- language system
- memory
- fine and gross motor skills
- categorization and cause-effect thinking
- social behavior
- fun activities

Therapy based on Metoda Krakowska® involves the following elements:

- auditory therapy based on the "Słucham i uczę się mówić" 3 program
- stimulation of speech imitation accompanied by articulatory gestures and Manualne Torowanie Głosek4
- therapy of visual functions
- Symultaniczno-Sekwencyjna Nauka Czytania®
- development of communication and language skills by keeping a diary (Pol.: Dziennik Wydarzeń)
- diagnosis of lateral dominance to choose the dominant hand
- stimulation of fun activities
- stimulation of functions of the left hemisphere
- social skills therapy
- stimulation of motor and manual functions
- stimulation of processing of gustatory, olfactory, and tactile stimuli
- stimulation of memory
- categorization exercises
- exercises in situational and cause-effect thinking
- exercises in analogy thinking

If all of the above-mentioned therapeutic elements are used, the child can reach the subsequent stages of development of all cognitive functions.

Metoda Krakowska® is especially recommended for children:

- with Asperger's syndrome
- with Down syndrome
- with alalia
- with childhood aphasia
- at risk for autism
- with Autism Spectrum Disorder
- with incomplete and delayed speech development
- at risk for dyslexia
- with cerebral palsy

<sup>&</sup>lt;sup>2</sup> Learning to Read using the Simultaneous-Sequential Method.

<sup>&</sup>lt;sup>3</sup> "I listen and learn how to speak".

<sup>&</sup>lt;sup>4</sup> Method of modelling speech organs manually in order to obtain a desired sound.

## Symultaniczno-sekwencyjna nauka czytania®

Symultaniczno-Sekwencyjna Nauka Czytania® is a syllable-based reading method and one of the therapeutic elements of Metoda Krakowska®. It is based on the knowledge about the human brain functions. Symultaniczno-Sekwencyjna Nauka Czytania® was created by Prof. Jagoda Cieszyńska.

Symultaniczno-Sekwencyjna Nauka Czytania® is based on the latest neuropsychological research, as well as many years of therapeutic practice of Prof. Jagoda Cieszyńska. The name of the method<sub>5</sub> is a direct reference to the organization of language functions in the brain. It uses both simultaneous (global, holistic) mechanisms managed by the right hemisphere, as well as sequential, linear mechanisms managed by the left hemisphere.

Learning to read using the simultaneous-sequential method can be divided into three stages – similar to those when a child acquires a language system – repetition, understanding, and naming. In the first stage, the child repeats the vowels / syllables read by an adult. In the understanding stage, the adult pronounces a vowel or syllable and the child points at it or gives it. The naming stage is based on the child's own reading of the vowels or syllables shown.

## Who is it for?

Symultaniczno-Sekwencyjna Nauka Czytania has been developed so that every child whose intellectual level is within normal limits or a child with mild intellectual disabilities can learn how to read.

Learning to read using the simultaneous-sequential method is intended for all children, but the best time to learn how to read is early preschool. According to Prof. Cieszyńska, if the child masters the art of reading before they go to first grade, it is easier for them to deal with this new and demanding situation, they can focus on other tasks and challenges they have to face at school, and they might create a more positive self-image.

Early reading applies not only to children at risk for dyslexia, but also to those who have a speech delay.

## Symultaniczno-Sekwencyjna Nauka Czytania® - Description

Symultaniczno-sekwencyjna nauka czytania® is associated with uppercase and sans serif font. Capital letters are more visually diverse than small letters. For example, it is easier to distinguish between P B D G than between very similar p b d g. A sans serif font is a font without any additional details (e.g. Arial). Simple letters make it easier to focus on the meaning of the text, and not on its appearance.

The basic assumption of the method is that the child learns to read using syllables. During classes, children learn the syllables that are given meaning, which makes the process of memorizing the material easier. According to Prof. Cieszyńska, the method is not only an effective way of acquiring reading comprehension skills, but for some children, it is also the only way to start building a phonetic and phonological system. The technique can be effective only if it is used holistically, without introducing phonetic spelling, letter spelling or any other reading techniques.

The method takes into account the child's perceptual skills and the stage of speech development. It introduces the child to the world of writing according to the difficulty level of articulated sounds and the differentiation of graphic representations of letters. The suggested general development exercises are selected according to the child's age and psychophysical abilities. They focus on the improvement of manual skills, visual and auditory analysis and synthesis, thinking exercises, simultaneous and sequential memory, focus and concentration, observation and association of terms, and the acquisition of logical thinking skills.

Another argument proving the need for early reading is associated with the fact that neuroplasticity is most active in childhood. The child is ready to make the first attempts when they share focus

<sup>&</sup>lt;sup>5</sup> Learning to Read using the Simultaneous-Sequential Method.

with an adult. This ability, which conditions learning through imitation, cooperation, and instructions, is born out of a finger pointing gesture and children who are around 12 months are able to use this gesture to learn the graphic representations of vowels, onomatopoeic expressions, and first words.

## Symultaniczno-Sekwencyjna Nauka Czytania® - Theoretical Framework

- recognizing the findings of neurobiological research that see the syllable (and not the phoneme) as the smallest perceptual unit
- learning to read by learning the meaning (and not by learning the letters)
- inclusion of natural language mechanisms (vowels read in isolation, consonants only as part of syllables)
- respecting the findings of neuropsychological research on intermodal auditory, visual, and motor connections
- applying the knowledge about simultaneous (holistic, right-hemisphere) and sequential (linear, left-hemisphere) functions, as well as the formation of structures for information transfer between brain hemispheres
- repeating the child's speech development sequence (from vowels, syllables, through onomatopoeic expressions, to words and sentences)
- imitating the three stages of language acquisition: repetition, understanding, and naming (independent reading)
- starting with easier, right-hemisphere tasks
- recognizing reading as a primary function and writing as a secondary function
- using capital letters and sans-serif fonts
- left-to-right ordering exercises

The right side of the brain is responsible for four skills that are necessary to prepare children for learning linear reading:

- vowel recognition
- recognition of exclamations
- recognition of onomatopoeic expressions
- global word recognition

The purpose of the preparatory stage is to awaken children's interest in speech and writing, to practice reasoning by analogy, and stimulate symbolic thinking.

Learning to read using syllables rules out the following elements: letter naming, phoneme segmentation, using serif fonts, and dictation.