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## **Use of the NTC Method in Children's First Three Years of Life**

A very important framework for the conceptualisation of preschool education in kindergarten is the knowledge of child development, which proceeds through certain sequential stages (Bahovec, 1999). The fundamental areas of child development are physical, cognitive, emotional-personal and social development. They are closely interrelated, but will be presented separately. Physical development is primarily concerned with physical changes, the development of motor and cognitive abilities and skills. All changes in intellectual processes, the development of speech, memory, reasoning, thinking, learning, judgement, problem-solving, are part of cognitive development. Emotional-personality development includes changes in the experience, regulation and expression of emotions, and the ways in which the individual responds to the environment. Social development is the development of interpersonal relationships, communication, social understanding and skills (Lindenberger and Reischies, 1999, in Marjanovič-Umek and Zupančič, 2009).

The NTC Learning Programme (NTC – Nurture of Talented Children) consists of a variety of games for children, based on the knowledge of brain function and development, which, thanks to the results of various research studies, have a very good effect on the formation and consolidation of synapses between neurons during the most intensive development of the child, i.e., from birth until somewhere around the age of 10 (Juriševič et al., 2010). It has been developed by the Centre for Education in collaboration with other educational institutions that have been working for years on improving the intellectual abilities of children. The author of the programme, Dr Ranko Rajović, together with a team of experts from different fields – pedagogy, psychology, special education, neurophysiology, genetics – designed a simple and effective programme with the possibility of monitoring and measuring the results achieved. Rajović's basic principle was to link neurophysiological knowledge with formal education, i.e., as he himself said, "harnessing the potential of the human mind and the power of childhood, combined with dedicated parents and educators, opens the door to more creative learning, faster knowledge, and easier discovery and development of a child's abilities" (Rajović, 2019). It is during this period that new connections between neurons can be most successfully stimulated through play, increasing the capacity to learn and promoting the development of the individual and, consequently, of the nation (Rajović, 2013).

The most common obstacles to child development are: overprotection of children; lack of contrast at birth; fixation of the head; giving the child soft food for too long; forbidding the child to crawl; forbidding the child to jump and to rotate around his or her axis; children not moving and walking enough; buying shoes with Velcro straps; children not walking around barefoot; buying a computer, a phone, a TV, etc. (Teran Košir, 2016). Rajović (2017) highlights the problem of the overprotection of children by their parents, who are afraid of the children falling, hurting themselves, putting something in their mouths and thus prevent them from doing things that develop their potential. It is important to do everything to keep the child safe, but we must not restrict the child in the process. We should not forbid the child to jump, but should be there to prevent any injuries. Juul (2015) agrees, noting that children are so sheltered from the world and life that they are unable to function, becoming incapacitated.

Maria Montessori said it all with her phrase "Help me to do it myself". By closely observing children, she found that children's desire for independence is very strong, that children have a lot of fun when they are trained to be independent, and that, if allowed to do things

independently, they are much happier than the children for whom we do everything (Seldin, 2018).

The first major stimulus for synapse development occurs immediately after birth. From birth until the first month of age, the child's vision is blurred, so it is very important to offer him or her as contrasting an environment as possible at that time (Rajović, 2017). This was also discovered years ago by Maria Montessori, who emphasised that babies are already born with an innate sense of creativity, intelligence and curiosity, so it is important to offer them a varied environment where they can develop their biological potential to the fullest, as they absorb everything they touch, see, hear or smell (Seldin, 2018). It has also been proved through research that it is the stimulating environment that has the greatest impact on a child's development immediately after birth (Ibuka, 1992). We need to stimulate the development of impulses in the brain and this is best done by stimulating the senses, motor skills; by activating the toes; by flexing the feet and feeling with them (when walking barefoot); by adjusting the eyes (looking near and far, for example, when doing a very simple ball exercise). Impulses are stimulated by offering the child solid food at the right time and not delaying it too long with mashed cereals, where the child does not have to engage those brain centres that are responsible for biting, tasting, tongue, teeth, jaw work, etc. New research shows that less impulse input to the cortex can lead to problems in cognitive development (Rajović, 2017).

The development of a child's potential is a dynamic and complex process, emphasises Rajović (2016), which requires the cooperation of a large number of factors, among which the family, the individual and the social environment are of primary importance. Research has confirmed that the active involvement of the people who spend the most time with children is more important for the development of abilities than education or status. This means that these people help to develop the child's interests and provide support for his or her intellectual discovery, which in turn fosters the development of giftedness. The Kindergarten Curriculum (1999) also places great emphasis on the role of parents and the cooperation between kindergarten and parents, which contributes greatly to the appropriate complementarity between institutional and family education and, consequently, to the quality of kindergarten. The division of responsibilities and competences is very important, but in the meantime, it is important to ensure that the kindergarten provides a service to parents that respects their culture, language, identity, values, habits and beliefs, and that parents respect the limits of participation and do not interfere with the professionalism of the teacher or of the institution itself. This is increasingly difficult to ensure, notes Švab (2001, in Hmelak, 2017), who goes on to say that there have been major changes in the forms and roles of the family. We are encountering a pluralisation of family forms, a maternal type of upbringing, a new fatherhood, child-centredness, which means that the child is at the centre of the family, and that parents do everything to protect him or her from all kinds of dangers. Rajović (2016) therefore emphasises the important role of the kindergarten in creating a supportive environment to foster motivation and positive attitudes towards education and knowledge. This is because some functions may not develop fully if the child is not stimulated at this early stage. It is very important for parents to recognise their child's needs, as this is the only way to help their child and encourage him or her to engage in activities that help the part of the brain responsible for a particular skill to develop better. By creating preconditions, the child will be better able to use his or her capacities for the different thought processes in life. Kindergarten also has an important role to play here, especially in the development of dynamic vision, which, if less developed, can lead to poorer performance at school due to reduced concentration and the possibility of developing dyslexia. Juriševič et al. (2010) believe that the problem lies mainly in watching television and playing video games, as this has a negative impact on the development of accommodation of the eye,

which must develop during this period. This process is developed by eye activity, rapid movements, which is not the case here. If we put all these obstacles in the child's path and do not help him or her to overcome them by the age of three, the child will have developed fewer synapses in many important parts of the brain. Later on, this can cause problems at school or even before school (pronunciation, speech, etc.).

The results of the survey show that less than half of the respondents (40%) use NTC teaching methods in kindergarten in the first age group. However, 96% of the respondents believe that every child makes progress when using the NTC method regularly. This is surprising, as 55% of these respondents do not use the NTC method of learning in the first age period. However, there are also respondents (4%) who think that children do not make progress when using the NTC method of learning regularly. Given these results and the fact that even those respondents who do not use the NTC method in the first age period think that every child can make progress, we are well on the way to increasing the percentage in favour of using the NTC method in the first age period. The examples of NTC learning that we have listed in this article can be of help.

Almost all scientists agree that after birth, brain development is almost entirely dependent on the child's environment. For example, the brain has innate properties that allow us to develop speech, but the actual development of brain functions and the formation of the brain's 'landscape' are entirely dependent on external stimuli. Everything that children come into contact with in the crucial earliest years of life lays the foundation for all subsequent life experiences (Seldin, 2018). Rajović (...) also notes that each generation of children is getting worse every year. As many as 50 percent of Slovenian children have difficulties in reading, writing or mathematics, and at the age of six with fine motor skills. Children have problems with eye alignment, with the large areas in the brain that regulate finger use, speech, etc. Each of these brain regions is extremely important for the development of cognitive skills. It puts the responsibility of parents first because they are the ones who should be aware that they are harming their children's development, especially by doing everything for them, by not letting them jump in puddles, by restricting their movements, and by "wrapping them in cotton wool" (Teran Košir, 2019).

This survey gave us an idea of the current mindset of kindergarten professionals. It could be used as a foundation for further development. First and foremost, with the concept of a school for parents before the birth of their child, where they would be informed about all the positive effects of early stimulation; about the mistakes to avoid in parenting, the activities to do, the experiences to offer the child. This work would then continue with kindergarten professionals, providing them with knowledge and examples of NTC activities in the first age period, because only in this way will we contribute to the integral development of each child.