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**EXECUTIVE FUNCTIONS AND NEW TECHNOLOGIES**

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## **ABSTRACT**

Executive Functions (hereafter EFs) are considered as “higher-level” cognitive functions. The most known and basic EFs are the working memory, the cognitive flexibility and inhibitory control, which give the opportunity to an individual to think, adapt to different environmental stimuli, resist temptations or impulsive reactions, stay focused, solve problems and generally think outside the box. EFs play important role in the human development, especially during preschool age, but also in all other phases of the human life. Their development depends on several factors. The level of EFs in preschool and childhood age could be a predictive indicator for an individual’s subsequent steps at academic, professional and social level, but also for the quality of life in general. The level of EFs during preschool age is considered important, due to the development of the brain at that age. Any deficits in the EFs may have a negative impact on an individual’s life and could be detected in neuro-developmental and other disorders. It is necessary to evaluate and train EFs in order to achieve the reduction of the symptoms caused by the deficits in EFs. The contribution of New Technologies is important in this area. Many studies have highlighted the benefits of EFs evaluation and training through online programs and software packages, especially in preschool age. The evaluation of EFs during the preschool age enables both the early prognosis and point out the need for training when the prognosis is not positive. This is important during preschool age, while these cognitive functions can be strengthened due to the neuroplasticity of the brain. In conclusion, the evaluation of EFs during preschool age is considered crucial for early intervention with the use of New Technologies. At the same time, the evaluation of EFs can contribute to the identification of any brain damage in specific areas of the brain, since EFs control brain functions. Moreover, EFs training will help the individuals to develop strategies and practice their skills, as such improving the quality of life in general.

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#### Διαδικτυακές Πηγές

- <https://www.pytoolkit.org/experiment-library/corsi.html>
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