**Remediation in ADHD**

*Abstract.* This paper discusses techniques of remediation used in a practical study case of an ADHD child. The major focus of this process is to enhance the development of underdeveloped functions and its main objective is to create, together with the patient, effective work methods, which would be meaningful to the child and would a part of his or her experiences in life.

The paper considers the case of a 7-year-old boy suspected of having ADHD and provides his pre- and post-neuropsychological evaluation data. The 6-month intervention process brought some significant results as the evaluation showed the development of several superior mental functions and the initial hypothesis of ADHD was refuted. Thus, the remediation process which involved an adult that respected the level of the child's development and included meaningful activities within an affective impact enhanced the child's development.

*Keywords:* neuropsychology, ADHD, remediation process, children.

*Introduction.* ADHD is a developmental condition which occurs very frequently in many people in the world. Attention difficulties mean that
people find it hard to concentrate and may vary from minimal difficulties to a disorder called attention deficit/hyperactivity disorder (ADHD). Solovieva and Rojas [1] argue that ADHD is one of the developmental syndromes most frequently detected at the preschool age. As Luria saw it [2], both evaluation and remediation are a part of the same process because during the evaluation, which is performed in the form of a diagnostic interview, the patient already reveals his or her strong and weak components. Evaluation and remediation are fundamental for treating children with learning disabilities in general, but especially for children with ADHD. The main goal of remediation is to engage, together with the patient, in creative work involving meaningful mediation elements [3].

**Materials and methods.** This paper discusses a practical ADHD study case in which the process of remediation was used as an intervention to enhance underdeveloped functions. Our study case is a 6-year-old boy, a first grade student of a private school in São Paulo, Brazil. He went through the whole evaluation and remediation process, which included pre- and post-neuropsychological evaluation and 6 months of weekly remediation. Both stages of the evaluation used the following neuropsychological tests that are commonly accepted in Brazil: NEPSY-II, WISC–IV, Hooper Visual Organization Test, RAVLT, ADHD questionnaire — SNAP and Complex Rey Figure. As a result of the pre-test, ADHD was suspected — this diagnosis had to be confirmed by a future medical assessment. The child passed through a 6-month remediation process with the sessions that initially were conducted twice a week and at a later stage, once a week. During the remediation sessions, we used a lot of motor and cognitive exercises. The protocol was established to attend to the client’s needs and develop the following functions: voluntary attention, control, interhemispheric interactions, spatial mechanisms, auditory and visual memory and language disorders. We went twice to the school, at the beginning and end of the semester, together with his parents and speech therapist to talk to the teacher and coordinator to set goals for joint work of parents, school faculty and therapists. At the end of the semester, a post-test was conducted to evaluate the child’s results and the development of all superior mental functions.

**Results.** The post-evaluation showed that the child’s IQ and processing speed had increased while his attention deficit had decreased significantly.
He developed several functions, but he still needs to work on enhancing the following functions: executive function, visual synthesis, language and fine motor. Therefore, he continues attending his remediation sessions and speech therapy sessions. The remediation now focuses mainly on executive functions, helping him to deal with the control of his impulsivity as well as his planning skills.

**Conclusion.** The remediation process, as an alternative to traditional medication, is very helpful in ADHD cases. Remediation should be seen not as correction but as creation and it is never too early or too late to start a remediation process with a child diagnosed with ADHD [4]. Remediation is a highly individualized process which addresses specific impaired functions and it proved to be very successful to develop weak components of the child’s mental functions based on those strong components that are preserved.