

## **Abstract**

**Title:** Differences in reaction rate in children with ADHD and the general population of the same age.

**Problem definition:** ADHD is a neuropsychological disorder occurring in part of the pediatric population (5-8%). The scientific public mentions the existence of the so-called hyperfocus, ie the ability to significantly concentrate in children diagnosed with ADHD, especially in the case of these children being interested in the task. Methodologically correctly compiled and performed testing of the reaction rate of these children could confirm or refute this assumption.

**Aims:** The aim of the work is to find out whether and possibly what effect the diagnosis of ADHD in children has on the reaction rate.

### **Hypotheses:**

**H1:** The reaction rate in individuals with ADHD will be on average the same or higher than in individuals of the same age of the healthy population.

**H2:** The difference between the individual experiments will be greater in children with ADHD than in individuals of the same age of the healthy population.

**H3:** The individual with fastest reaction ability with ADHD will have the same or better result as the individual with the fastest reaction of the same aged healthy population.

**Methods:** Testing for the purposes of this diploma thesis took place in the ROSA center. 12 probands in the tested group and 7 probands in the control group took part in the testing. The Vienna test system software and hardware, developed by Schuhfried for reaction rate testing, was used to test the reaction rate. MS Excel software was used for statistical data processing.

### **Results:**

**Key words:** ADHD, Reaction rate, reaction ability, reaction time, Vienna test system, attention deficit hyperactivity disorder