

## **Abstract**

Attention is a complex ability, which significantly contributes to the process of intentional learning. On the theoretical level, this thesis focuses on the types and theories of attention related to the effective management of school demands. More specifically, it focuses on the development period of older school age and adolescence, i. e. secondary school pupils. The paper analyzes the results of scientific studies that have been focused on the research of attention and its properties (e.g. stability, concentration or selectivity). The work is focused on examining whether a low-cost compensation aid – here earplugs – can improve concentration and stability of attention during learning. Furthermore, the work briefly mentions the physiological basis of the functioning of this cognitive process. The conclusion of the theoretical part of the paper maps the current possibilities of diagnostics of attention, especially in children and adolescents. There are also sporadic mentions of selected attention disorders (e.g. ADD, ADHD), which are closely related (not only) to learning.

In the empirical part of the thesis, a quantitative research is described, using several different tests of attention. The research question is whether and how the attention (concentrating) and, where appropriate, the performance of pupils of secondary schools differs in relation to them using or not using earplugs in the process of intentional learning in order to reduce disturbing elements from the environment. The research is conducted on the Czech population within the age category from about thirteen to nineteen years.

It is not the aim of this work to focus on the pathology related to attention. Attention is considered here as a mental process necessary, for example, for the transfer of important information to the working memory, which is very important for learning. We assume this data could in practice be used to help, for example, children with ADHD to reach satisfying results easier in some learning phases or in general when performing tasks requiring a higher level of concentration.

## **Keywords:**

Attention, learning, children, concentration, school age, cognitive function, earplugs, memory