

## **ABSTRACT**

The dissertation entitled Cognitive deficits in children with visual impairment and the possibilities of their early diagnosis responds to the need for a tool for the early detection of visual impairment at the level of the visual apparatus in children with cognitive deficits for special pedagogues.

The aim of the thesis is to design and verify the reliability and usability of a tool for the early detection of visual disorders at the level of the visual apparatus, which could be used by special pedagogues. Based on them, identify children with an indication for a complete ocular and orthoptic examination. The partial goals are to determine the coincidence of visual impairment with cognitive deficit, to compare the reliability of individual stereotests and to evaluate the practical use of the tool for special pedagogues.

The theoretical starting points are current findings on the issue of cognitive processes and their deficits, the visual analyzer and its defects at all levels, with an emphasis on defects at the level of the visual apparatus and the relationship of cognitive deficits to visual disorder in childhood.

The research part is based on a tool created to detect defects at the level of the visual apparatus for special pedagogues and to determine its reliability using the quantitative method and its applicability using the qualitative method. Thus, the core of the research project is a mixed design. The selection file is two-stage. 150 children and pupils of the second stage of the selected target group were examined.

Results of quantitative research: The sensitivity of the newly created tool was 100 %, the specificity 40 %. The most common visual defect was stereopsis disorder, followed by fusion disorder, followed by convergence disorder. Eye-hand crossed laterality was 53 % in our group. The most frequent coincidence of crossed eye-hand laterality was in our group with stereopsis disorder. The agreement between the Randot and Titmus stereotests was 82 %, between the Titmus and TNO tests 78 %, and between the Randot and TNO tests was 74 %. The lower agreement was between the Titmus and Lang, Randot and Lang, TNO and Lang tests.

Results of the qualitative research: Special pedagogues managed the implementation of the tool excellently. From their point of view, the tool is beneficial for the practice of special pedagogues, it offers another tool for a comprehensive approach, they consider it meaningful and manageable.

## **KEYWORDS**

Child or pupil; cognitive deficit; visual disorder; visual apparatus; tool; early detection of visual impairment; special pedagogue