

## **Abstract**

Self-administered electronic tests for memory are a modern approach. They can help the elderly gain insight into their memory status and recommend an examination by a specialist.

The topic of the master thesis is the development of an electronic memory test for the elderly. The existing electronic tests of memory are described in the theoretical part. The research project consists of two parts. In the first phase of the project, an electronic test of memory was created. The psychometric properties of this test were determined in the second phase of the project on 108 people over the age of 55. A total of 74 persons were examined by selected neuropsychological tests to determine the correlation between the scores of the created electronic test and the scores of neuropsychological tests. From this group, 45 people with normal cognitive function were selected to match the socio-demographic characteristics of a group of 34 patients with mild disability of cognitive function. The reason was to be able to compare the results of the electronic test between these two groups.

The overall score of the created electronic test, which is the sum of scores from its individual parts, differs significantly between healthy people and patients. The overall score of the electronic test is statistically significantly correlated with the scores in the RAVLT test and with the duration of the TMT.

An initial version of the electronic memory test for the elderly has been developed. The findings of this thesis will contribute to the further development of the test on a professional platform in cooperation with IT specialists.

## **Keywords**

Elderly; Cognitive function; Memory testing; Electronic tests of cognitive function; Development of the electronic test of memory