

## **ABSTRACT:**

The main topic of my diploma thesis is the diagnosis and the therapy of handwriting training of hand grasp in preschool children. This diploma thesis describes and evaluates possibilities of using a handwriting tool, which was developed in cooperation with Centre for Biomedical Engineering and 1. Faculty of Medicine, for hand grasp testing. A handwriting tool measures fingers grip pinch while the fingers are used in hand grasp.

The theoretic part comprehend useful findings about handwriting, its development. In detail it is focused on diagnosis and therapy of hand grasp, which is an important aspect in handwriting development. This theoretic part also includes description of handwriting disabilities in preschool children and description handwriting tools, which are used for correct hand grasp training. The conclusion of the theoretic part is focused on therapy of hand grasp and handwriting training from the ergotherapist point of view.

The goal of the practical part is to find out fingers pinch in hand grasp in normal healthy preschool children using a specially developed handwriting tool and to recommend another possibilities of using this new tool in handwriting training.