This Diploma Thesis deals with untraditional mathematical-didactical environment of "Grandad Lesoň" in teaching children of pre-school age and of the first primary-school year. The aim of the Thesis is to explore the ability of short-time memory, working with icons and acquirement of simple equation relations. The children of lower school age proved ability to understand a topic with confidence and showed that they are able to apply all their skills. To acquire the confidence it is necessaiy for the children of preschool age to have more leeway.