

Abstract

This thesis focuses on the phenomenon of handedness and possible differences at verbal skills and spatial orientation abilities among left-handers and right-handers. The theoretical basis for these potential differences may be discrepancies in the distribution of specialized functional areas in the brain hemispheres among these two groups or environmental factors. Differences between left-handers and right-handers have been explored in a series of studies but the findings remained inconclusive. In my study I focused on a group of elementary school pupils at the age of 10 to 11 years. Pupils were classified as left or right-handers after performing ten common manual tasks. Language-analytical and spatial orientation tests were administered in a paper form, verbal fluency was tested orally. Statistical calculation carried out through multivariate analyses of variance revealed that age has significant influence on the results of the pupils. The effect of sex was found only at the verbal fluency task, where the girls outperformed the boys. The effect of handedness was found also only at the verbal fluency task, where the right-handers outperformed the left-handers. In both of the latter mentioned cases the findings were only identified as a tendency. Possible fluctuating influence of sex among left and right-handers wasn't found nor the fluctuating influence of the handedness among girls and boys. Small effect size was calculated for all of the results. These findings are showing large interindividual differences among children and still ongoing development of both verbal and spatial orientation skills. Also they're showing possibility of relationship between left-handedness and orerous ability of articulation as a component of general motoric abilities, which may be caused by the discrepancies in distribution of specialized functional areas in the brain hemispheres.