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Handedness and Gender Differences in Spatial Abilities

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KEY WORDS Handedness; gender differences; spatial ability.

ABSTRACT The sex- related differences in the cognitive functions are fairly well established and documented as well at least in three different areas viz. Mathematical, verbal skill and spatial visualization (Maccoby and Jacklin, 1974). Precisely, the research on cognitive abilities of men and women has a long history. But it does not imply that there is well documented literature, on the similarities and differences, have not yet agreed on the extent and origin of these differences rather than on the theoretical origins of presumed differences (McGuiness, 1989). After reviewing the literature on human handedness, spatial abilities and gender differences in the cognitive functioning, the various *hypothesizes* have emerged out and it has been tried to make an attempt to test some of them. So with this view, the present study was conducted on the college going students of the CCS University, Merrut, U P. Present study is an attempt to understand the human handedness, spatial ability and gender differences in the cognitive functioning. Most of the tests did not reveal the significance in gender differences in spatial ability except mental rotation task (MRT) for sex and handedness. Sex differences indicate the significant differences in mental rotation task. Similarly Handedness also exhibits the similar differences. But the interaction between two variables (Sex and Handedness) is non-significant. In mathematical task, to draw an angle of 60°, only the interaction between Sex and Handedness reveal significant effect. Precisely, there are Gender and Handedness differences in spatial ability in drawing the 60° angle for right-handed subjects and Mental Rotation Task (MRT), whereas the other task somehow were not so sensitive to pick up the differences.

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