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**DIFFERENTIAL EFFECTS ACHIEVED GENDERWISE IN
TEACHING CHEMISTRY USING MACROSCOPIC METHOD**

A PROJECT REPORT PRESENTED BY

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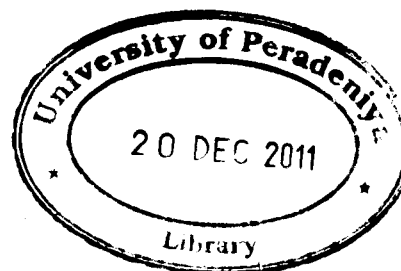
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ABSTRACT**DIFFERENTIAL EFFECTS ACHIEVED GENDERWISE IN
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Using Macroscopic approach to teach Chemistry has been suggested as a help for both males and females. However, some experimental data suggest that males and females learn differently due to their different levels of logical thinking and geometrical capabilities on spatial problems (Halpern,1992) . Logical thinking was measured by paper and pencil GALT test (i.e. Group Assessment of Logical Thinking test) and their spatial abilities were measured by SM tests (i.e. Symbolic and Macroscopic approach tests). The A/L unit 4, molecular bonds and shapes, was presented by 7 modules to treatment groups and control groups of 10 male students and 10 female students each taken from 2 parallel classes of three types of schools (1 AB, National and semi government) which were subjected to the research. The control groups were taught using the traditional symbolic approach only and treatment groups using both symbolic and macroscopic approaches. From the results of achievement tests given in the middle and at the end of the project, the treatment groups scored significantly higher marks across the modules. When the data were analyzed for gender group interactions both females and males who were taught using both macroscopic approach and traditional approach, scored very well. Female and male groups who were not taught by the macroscopic representation scored significantly low marks. The difference of the scored percentage in the treatment group of females was quite significant than the difference in treatment group of males. This shows that teaching Chemistry in the macroscopic approach is fruitful and that it helps the females much more to solve questions logically and geometrically in 3 dimensional space.