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AN ANALYSIS OF MISCONCEPTIONS IN ELECTRICITY AMONG G.C.E. (A/L) STUDENTS

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A questionnaire-based survey was carried out in order to identify the prevalence of misconceptions among secondary school population on the subject areas learnt in electricity under Physics. The analysis of the student responses revealed that misconceptions lead to erroneous judgments in the application of theories of electricity.

A series of experiments were designed for supporting students to get rid of the misconceptions, and those were tried with a sample of students. Through those experiments students could learn the actual behaviour in each application and thus they were able to correlate each phenomenon in concern to the fundamental theories of electricity. A considerably higher degree in providing the correct responses was observed in students' responses to the questionnaire after the experiments were done.

The project showed that due to the real practical nature of the subject of electricity students do hold misconceptions, and it is possible to support them to repel those misconceptions through simple experiments, which directly correlate the practical nature in the basic applications of electricity with the basic theoretical concepts of the subject.