

EFFECT OF DIFFERENT TEACHING METHODS ON STUDENTS' PERFORMANCE IN THE ELECTRONIC SECTION OF G.C.E. ORDINARY LEVEL SCIENCE: CASE STUDY OF STUDENTS FROM NUWARA ELIYA DISTRICT, SRI LANKA

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The majority of science students week in the electronic section of the science curriculum prepared for the General Certificate Examination of Ordinary Level (G.C.E. O/L) in Sri Lanka. The primary objective of this study was to evaluate student performance in the electronics unit of the Grade 11 science curriculum. The four different teaching methods were comparatively evaluated for their effectiveness. The identification of suitable teaching methods, determination of subject performance, and evaluation of the relationship between teaching methods and performance were the specific objectives of this study. A quasi-experimental design with a quantitative approach was used for the study. A sample of 113 Grade 11 students from two schools in the Nuwara Eliya District was selected using non-randomized sampling. The electronic unit of the science curriculum of Grade 11 was taught to four parallel classes using four different teaching methods: guided discovery method, lecture method, teacher demonstration method and simulation method. The performance test scores obtained were analysed using SPSS software. The findings indicated a significant difference between teaching methods and student achievements ($p = 0.001$). Among the four teaching methods, the simulation method was identified as the best method. Both male and female students showed preferences for the simulation method, suggesting its importance in teaching the electronic section in the Grade 11 science curriculum.

Keywords: Achievements and performance, Electronics, Guided methods, Simulation method