

## Abstract

The thesis titled FACTORS INFLUENCING STUDENTS' PERFORMANCE IN ENGINEERING EDUCATION IN INDIA, empirically investigates the influence of various factors on students' academic performance. The factors are classified into three categories; students' prior preparation, their background and their personality traits. In India engineering education is imparted in mainly three types of institutions; those established by Central Government, by State Government and by private entrepreneurs.

A cross-sectional survey based descriptive research is deemed appropriate because of its ability to gather information from a large sample and its objectivity. Three colleges, representing the three main types, are purposely selected as the samples. Then, from each college, only the students studying in the third year of their 4 year B.Tech. Degree Course constitute the sample.

To empirically establish the truth of the commonly held opinion about the differences in the quality of the three types of colleges and to decide whether to take the three colleges as one group or three different groups, analysis of variance was carried out. The results led to the rejection of null hypothesis of no difference among colleges. The public opinion is upheld because Central Government admits students with the highest achievement in all subjects in class X and XII, coached for the longest duration, and coming from families earning the highest incomes, State Government College admits students with better preparation in Science and Math in class X and XII, coached for longer duration than students at private college, and from families earning the lowest income, and the private college admits students with poorest prior preparation.

The background factors like gender, family income, medium of instruction, area of location of school, parents' education and their profession exert maximum influence at Central Government Institute and minimum at private college. For example; the limiting effect of gender being female may be observed.

Students' marks in Physics, Chemistry and Mathematics in class XII, aggregate percentage of marks in class X and motivated strategies of learning have a positive relationship with their Semester Grade Point Average (SGPA) in all the 5 semesters in all the three colleges.

However, students' marks in English in class XII, emotional intelligence and number of attempts taken at Joint Entrance Examination have a negative relationship with their SGPAs in all semesters at Central Government Institution. At State Government College, number of attempts taken at Joint Entrance Examination has a positive relationship with SGPAs but emotional intelligence has a negative correlation with SGPAs in 4 semesters.

**Key words:** Prior preparation factors; Background factors; Locus of Control; Communication Skills; Emotional Intelligence; Motivated strategies for Learning.

Copyright  
IIT Kharagpur