

PERFORMANCE AT HSC AND ENGINEERING EXAMINATION - A STUDY OF RELATIONSHIP

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It is true that at the time of admission, some sort of natural selection takes place and good Institute gets good students while mediocre Institution gets mediocre students only and the ultimate measure of the standard of any Institute, in particular, is the academic excellence of the students passing out of the institution. Specific cogitation is needed for reforming the standard of the students and the Institution.

As mentioned by Prof. K.M.Hebbar (1) the course content relevant to the need of industry, the aids and equipments and the interest of management help in producing good standards but the most vital components responsible for improving the standards of Engineering Colleges and students are the Teachers and the Guidance given to the Students.

Recently, the author conducted a survey for the 25 students studying in final year of Mechanical Engineering. Their HSC percentage in PMC and the percentage of third year were collected. The data is clustered in three groups as follows :-

GROUP 'A'	HSC PCM percentage 54% to 72% Third Year Engineering percentage 52% to 75%
GROUP 'B'	H.S.C. PCM percentage 70% to 84% Third Year Engineering percentage 52% to 65%
GROUP 'C'	H.S.C. PCM percentage 61% to 76% Third Year Engineering failed in 1 to 6 subjects.

GROUP - A		GROUP - B		GROUP - C	
PCM % HSC	% in third year	PCM % HSC	% in third year	PCM % HSC	% in third year
68	75	72	54	76	Failed
60	58	70	53	70	Failed
64	65	84	65	73	Failed
72	63	83	62	65	Failed
60	62	70	53	71	Failed
54	59	74	55	76	Failed
55	52	78	54	62	Failed
56	65	71	52	61	Failed
				66	Failed

A careful analysis of above data reveals that students of Group 'A' were more successful than group 'B' and Group 'C' students. Even the top scorer in the third year of Engineering with 75% had mediocre 68% (PMC) in H.S.C. The question is why the mediocre students improve though the course contents, teaching, laboratory facilities were alike for all the students. The answers to this may be:-

- 1) The students of Group 'A' were motivated to the course.
- 2) The students of Group 'A' were more particular about to the technical subjects.
- 3) The students were sincere and worked hard compared to the Group 'B' and Group 'C' students.

Discouraging factors in the above data is the fall in the standard of Group 'B' and Group 'C' students though their percentages in H.S.C. were good. The reasons for this may be, they lacked above mentioned three factors and the institute should regulate the progress of these groups. The following measures the institute can take for improving the standards of the students.

- 1) Institute should plan a follow-up programme and the progress of each student must be analysed at regular interval right from the first year of Engineering.
- 2) Motivate the students.
- 3) A studious environment in the institution should be maintained.
- 4) The student should be kept busy in various activities like collection of data about latest developments in industry, in research etc.
- 5) Arrange regular industrial visits for the students.
- 6) Plan short term training programme for the students.
- 7) Tutorial periods must be used for the ascertainment of the work of students and give such students extra assignments.

TRAINING OF TEACHERS IN ENGINEERING COLLEGES

It is observed that in Engineering Colleges most of the staff have no industrial experience. Considerable number of

graduates join teaching field just after passing their graduation. A separate industrial training programme for the inexperienced teachers is essential. Teachers should be exposed to industry by arranging 4 to 6 weeks training every year during their vacation periods and they must be asked to complete small projects assigned to them. For example for the mechanical staff who are supposed to teach power subjects must get training in industry on boilers, air-conditioning plants, engines etc. Similarly a teacher supposed to teach production subject must get training on production line, inventory system, management, marketing etc.

CONCLUSION

Is seen that the standards of institution largely depend upon teachers and the guidance to the students. Survey conducted shows that there is definite improvements in the standards of mediocre students and institutes admitting mediocre students can improve their standard by proper guidance and by detailed follow-up programme. Institute must impart specialised Industrial training to the teachers so that the standard of teachers improves and they can pass on exhaustive technical informations to the students. These measures will definitely help in improving the academic standards in Engineering Colleges.

REFERENCE

- 1) "Academic Standards in Engineering Colleges" By Prof. K.M.Hebbar, Journal of Engineering Education, April, 1992.
