

**AN ANALYSIS TO ASCERTAIN THE EMPLOYABILITY QUOTIENT
BASED ON ATTITUDE SKILLS**

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ABSTRACT

Engineering education aims at providing students with sufficient disciplinary knowledge of science and engineering principles in order for them to become successful engineers. However, to fulfill their roles as professional engineers, students also need to develop personal and interpersonal skills, as well as professional skills, in order to implement and apply their theoretical and technical knowledge in a real context. Engineering is a profession directed towards the application and advancement of skills based upon a body of distinctive knowledge in mathematics, science and technology, integrated with business and management and acquired through education and professional formation in an engineering discipline. Engineering is directed to developing and providing infrastructure, goods and services for industry and the community. Institutions organize on-campus and off-campus placement and job fair by pooling students from various institutions, wherein companies recruit students in large number. However there are many graduates who are not able to get through the recruitment process and jobs. Employers in every industry sector emphasize the need for employees with certain foundational skills like strong academic grounding in reading and math, teamwork, problem solving, analytical ability, work ethic, integrity and general knowledge. Employability skills are soft skills and competencies that have always been looked upon by the industry and play an important part of effective and successful participation in the workplace. Today industry is increasingly

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assessing the employability skills of the graduate while recruiting its human resources. Hence in this paper an attempt is made by the authors to rank the employability skills in attitude of the engineering graduates.

Keywords: Employability, Attitude, Team Work, Decision Making Skills, Listening Skills

Introduction

In today's scenario of higher education, placement is a buzz word. Parents and students prefer colleges and institutions which arrange placement opportunities by conducting campus placement and placement readiness training. Every college and institution tries to maximize their placement ratio. During the last decade, the opportunities for graduates in various sectors have increased tremendously, especially for engineering students. Institutions organize on-campus and off-campus placement and job fair by pooling students from various institutions, wherein companies recruit students in large number. However there are many graduates who are not able to get through the recruitment process and jobs. Globalization has also increased the standards of education and career profiles. Multinational companies are opening in India and are looking for well trained employable individuals. Employers want much more than academic grades. At the least they expect the skills for team work, interpersonal relationship and good analytical ability. Today these soft skills are the most important qualification for any individual to communicate well and to get jobs. But it is a fact that even those graduates who are good at academic performance are not good in communication skills, and that is a hurdle for their career opportunities.

Statement of the Problem

Teaching professional skills in engineering education involves considerations about learning and the development of competences among students, e.g. how the choice of teaching methods create the context in which the engineering students learn and how the teaching design interrelates and facilitates the learning of professional skills. Other issues to considered are the nature of professional skills and competences in the field of engineering and how these skills develop. Employers in every industry sector emphasize the need for employees with certain

foundational skills like strong academic grounding in reading and math, teamwork, problem solving, analytical ability, work ethic, integrity and general knowledge. While employers rely on employees to have the same basic skills, they do not always talk about or label them the same way. This makes it difficult for prospective employees and educators to know exactly what it takes to be ready to succeed in any career path in any industry. Employability skills are soft skills and competencies that have always been looked upon by the industry and play an important part of effective and successful participation in the workplace. Today industry is increasingly assessing the employability skills of the graduate while recruiting its human resources. Hence in this paper an attempt is made by the authors to rank the employability skills in aptitude of the engineering graduates.

Source of Data

The primary data are those which are collected afresh and happen to be original. The study is based on primary data collected from final year engineering students pursuing their under graduate study in Coimbatore. The data relating to personal, socio economic status of the respondents, academic details, employability quotient expected by the recruiters from the prospective recruits are collected

Universe

Out of 55 engineering college in Coimbatore districts regulated by Anna University of Coimbatore, the study has been confined to the final year under graduate engineering students. Colleges which have completed a minimum of three years of educational service are only taken for the study. Based on this criterion there were 27 colleges where the data could be collected but when the researcher approached the colleges for collecting data through a Interview schedule method, five colleges were not interested in conducting the research for their students and hence the study has been conducted among the 22 colleges where the total numbers of respondents pursuing the chosen six field of study are 9720 and thus they constitute the universe of the study.

Sampling Size

The proportionally stratified simple random sampling method has been used. By making a balance between the limited time available for a part time researcher on the one hand and the requirement of a number of observations for a rigorous statistical inferential analysis on the

other hand, it has been decided to select a sample of 486 out of 22 colleges in the universe. The study has been confined to six particular fields of specialization. The fields are:-

- Computer Science Engineering (CSE)
- Civil Engineering (Civil)
- Electronics and Communication Engineering (ECE)
- Electrical and Electronic Engineering (EEE)
- Information Technology (IT)
- Mechanical Engineering (Mech.)

Selection of Sample

The students have been listed discipline wise. The sample has been distributed among the sample colleges and disciplines in proportion to the number of students through proportionate random sampling method. The Interview schedule has been issued to 486 sample respondents proportionately distributed among the field of study. Collected Interview schedules have been studied for consistency and 36 sample respondents have been removed for inconsistency and for non completion of test during stipulated period. Finally the sample size has been reduced to 450.

TABLE 1 - DISTRIBUTION OF SAMPLE RESPONDENTS

Branch of Study	Population	No of Respondents	Percentage
CSC	1990	92	20.5
ECE	2140	99	22.0
EEE	1995	92	20.5
IT	2050	95	21.0
Mechanical	1015	47	10.4

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Civil	530	25	5.6
Total	9720	450	100

Source: Computed

Employability Quotient –Attitude Skills

Soft skills are skills pertaining to personality, attitude and behavior. The productivity of an organization depends upon the performance of the individual which depends upon attitude. In the liberalization era the graduates have to work with cross cultural, cross gender, cross national people both individually and as a group for effective productivity. Thus the job aspirants have to possess not only core or hard skills but also soft skills, such as leadership skills, team building skills, time management skills etc. Top ten IT companies which recruit employees through campus interviews have been asked to rank the ten attitude skills based on their importance which are necessary while considering a candidate for employment. The ranks have been assigned as one for the most important skill, two for the next most important, ranking has been followed in the same order and the least important skill was given a rank of ten. Based on the data collected from the mailed questionnaire five top ranking attitudinal skills have been identified. The Table 2 shows the rank of preference and the mean ranks calculated for each of the skills.

TABLE 2 - RANK OF EMPLOYABILITY SKILL IN ATTITUDE

Employability Skills	Mean	Rank
Attitude towards work	1.95	1
Tolerance to Ambiguity	7.70	7
Time Management	2.40	2
Motivational Skills	7.55	6
Team work	2.80	3
Decision Making skills	3.90	4

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Interpersonal Skills	7.90	8
Leadership skills	3.95	5
Divergent Thinking	8.60	10
Listening skills	8.25	9
Kendall's W (a)-0.806 Chi-Square-72.568 Df-9 Asymp. Sig.-**		

Source: Computed

The mean ranks given in Table 2 shows that among the skills ranked, the highest importance is given to Attitude to work (1.95), followed by Time management (2.40) and the third most important skill expected is Team Work with mean rank of 2.80. The least importance as per the mean ranks, expected by the companies is Divergent thinking skills (8.60). However, it has been of interest to see whether there was similarity among the IT companies in assigning the importance to the skills expected. Kendall's coefficient of concordance (W) has been calculated to find the extent of similarity among the companies in assigning the ranks for attitude skills. Kendall's W ranges between 0 and 1, the higher the value of W the more will be the similarity among the companies in assigning the ranks. The Kendall's W calculated for the ranked data was found to be 0.806, which shows that the companies are more uniform (similar) in their order of preference for the skills expected from the prospective job seeker. The chi-square test conducted (chi-square= 72.568) to find whether the W is significant shows that Kendall's coefficient of concordance is significant at 1% level. It also reveals that attitude of candidates towards work plays a major role in recruitment; the other major skills expected are time management, team work, decision making skills and leadership qualities. The prospective job seeker is expected to possess all the ten skills for getting a job, but they are directly or indirectly influenced by the top five ranked skills.

Conclusion

Analysis of the statistics gathered through this survey suggests that the most essential generic skills and attributes of a modern engineer are technical knowledge and skills and

attitudes. Attitude of an individual plays an important role in determining the behaviour of an individual. IT companies work on time bound, they lose or gain projects at the pace at which they are able to deliver and satisfy their client. Self management, being punctual, completing the task on time are some of the qualities expected from the fresh recruits. Decisions should be rational and objective; it should not be biased and autocratic. Recruiters test this skills by giving a situation or event to perform in the hiring process. As decisions are crucial and time bound and the graduate is expected to solve complex problem in the given time, thus these skills are important for any graduate aspiring for job. All fresh graduates who join the company are expected to grow and advance in their career ladder. They are expected to lead the team over the years and qualities like planning, organizing, directing, delegating, controlling, motivating and co-coordinating skill are very much expected by the corporate from the job aspirants. In attitude skill, the expected skills are attitude to work, time management, teamwork, decision making skills and leadership skills.

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