ENHANCING THE EMPLOYABILITY SKILLS OF ENGINEERING STUDENTS

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“The goal of education is to produce men of quality who combine competence with virtue”
-Chinese philosopher Confucius.

Abstract

In today’s scenario, placement is the buzz word. 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, companies recruit students in large number. However there are many graduates who are not able to get through the recruitment process and jobs. Current technological and economic changes have created a challenging context for students.

India is growing in importance for centers of services outsourcing and a hub for manufacture of goods. Even though company’s requirement is huge but they don’t hire all the aspirants, they analyze the prospective candidates on certain skills and abilities. This raises the following questions

❖ Why all the aspirants are not able to get the offers even though they come under the same educational system?
❖ What are the different types of skills expectation by the companies from the prospective hirers?
❖ Is it possible to formulate strategies based on competency mapping of students for enhancing employability?

This paper tries to probe the various employability skills that employers demand from job-aspirants while hiring students and the reasons for low level of employability skills among students.
Introduction

In today’s scenario, placement is the buzz word. Parents and students prefer colleges and institutions which help their wards in placement opportunities by conducting campus placement or 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, companies recruit students in large number. However there are many graduates who are not able to get through the recruitment process and jobs. Current technological and economic changes have created a challenging context for students.

The Requirements of the World of Work observes that, a number of competencies are expected from candidates. Globalization has increased the pressure on companies, for the need to effectively manage their manpower and also their clients. This demands focus on development of (a) generic skills; (b) application skills; and (c) soft skills or life skills apart from proficiency in their subjects. It involves oral and written communication skills, basic computer skills (MS Office, Internet, etc), and a good workplace attitude (commitment and teamwork). These skills are prerequisites for employability.

Globalization has also increased the standards of education and career profiles. Multi national companies are opening in India and are looking for well trained employable individuals. Employers want much more than academic success. At 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 succeed. But it is a fact that most of the graduates are good at academic performance, but not efficient in communication skills, and that puts them behind in their career opportunities. These changes have had a great influence on students at the entry level. Industries expect that the recruits should be well versed in contemporary areas and have the ability to apply knowledge therein and possess technical and soft skills.

Emerging Indian Scenario:

India is growing in importance for centers of services outsourcing and a hub for manufacture of goods. Some indicative figures for expected job creation are given below:

1. India could achieve $165 billion in merchandise trade by 2009-10, creating an additional 21 million new jobs
2. The IT and BPO sector would employ nine million persons directly and indirectly by 2010.
3. The National Manufacturing Competitiveness Council in its recommendations has said that raising the rate of growth of manufacturing to 12 % would create 1.6 to 2.9 million direct jobs annually, and two to three times of that number indirectly.
4. NASSCOM estimates that by 2008, a million Indians will be needed in the ITES sector. The demand for the people with the right skillsets is high, and far outstrips the supply. Most of the large Indian software companies are setting up BPOs, and of course many, multinationals have back offices on Indian shores.
Employment requirements and qualifications vary depending on the needs of the employer’s and their projects/ nature of work accomplished. On one hand the need for manpower in the industry is huge and on the other hand it is generally acclaimed that, In India, software engineers, civil, electronic & telecommunication engineers, chemical engineers, doctors and Managers are admired worldwide, but still the need for manpower is not met. It is reported that employers don’t get the applicants with right skill set, mind set and tool set especially in the engineering and construction sectors. Currently there is wide chasm between what the educational institutions are churning out and what the industry expects.

According to McKinsey Global Institute survey results, “India produces 360,000 engineering graduates, 600,000 graduates in arts/science/commerce.” And only 25% of engineering graduates and 10% of other graduates are employable.

Technical education plays a vital role in human resource development of the country by creating skilled manpower, enhancing industrial productivity and improving the quality of life. Technical Education covers courses and programmes in engineering, technology, management, architecture, town planning, pharmacy and applied arts & crafts, hotel management and catering technology. The need for the companies is growing year after year. NASSCOM report reveals that the universities and colleges are not able fulfill the need for manpower. Even though company’s requirement is huge but they don’t hire all the aspirants they analyze the prospective candidates on certain skills and abilities. This raises the following questions

- Why all the aspirants are not able to get the offers even though they come under the same educational system?
- What are the different types of skills expectation by the companies from the prospective hirers?
- Is it possible to formulate strategies based on competency mapping of students for enhancing employability?

What is Employability?

Industry looks for a different mix of skills, abilities, capabilities and competencies in potential hires depending on the business it’s in. Industry also looks for multi skilled individuals. All these things lead to unemployability. The unemployment is not because of lack of job opportunities but due to lack of skill available in the job aspirants. These skills are called as employability skills.

Employability skills are all about the ability of individuals to exhibit their skills to the prospective employers and the ability to execute the tasks thereby achieving organizational goals and objectives. Besides, it also talks about the ability to switch over to other jobs comfortably.

Employability skills refer to specific skills essential for employment. These are the critical tools and traits required to perform tasks at workplace. These skills are much sought after
these days by employers. The needs of employability skills differ from country to country and from sector to sector and from time to time. However, certain qualities such as communication skills, interpersonal skills, integrity, right attitude, problem solving, decision making and team building skills can be taken as a few common skills of employability skills. In simple Employability skills are the 'ready for work' skills vital to do the job!

Critical employability skills that employers demand of job-aspirants

1. Communications Skills (listening, verbal, and written):- One of the important skill expected by employers is the ability to listen, write, and speak effectively. Successful communication is critical in business. Communication is an important facet of life. Communication skills are essential in all spheres of life. Be it an interview or dealing with the project leader or working out a solution with a team or writing a report, getting across the point effectively. People in organisations usually spend 75 percent of their daily time on communication through writing, reading, listening, speaking, inter-debate etc. Effective communication is an essential component for organisation success, whether it is the interpersonal intra group organisation or external levels. A recent newspaper report said that out of hundred job aspirants attending the interviews, only three to five possess employability skills. It is not that they were technically not sound but they lacked in communication skills. Communication skills are as important as technical qualifications for youngsters aiming at a bright career. Communications hold the key. Poor communication skills, low confidence levels and improper body language have resulted out in the job race. The person recruited will have to deal with the global clients directly. The command over the language and accent neutralization also plays a vital role in the recruitment process.

2. Analytical/Research Skills:- Deals with the ability to assess a situation, seek multiple perspectives, gather more information if necessary, and identify key issues that need to be addressed. It has been seen that companies as a primary step in the recruitment process check the analytical skills of the job seekers through a structured set of question paper and more than 50% of them are left behind due to lack of analytical skills.

3. Computer/Technical Literacy:- Almost all jobs now require some basic understanding of computer hardware and software, especially word processing, spreadsheets, and email. Keyboarding skills are essential for all types of jobs. The companies also test these type of skills in the selection process, by conducting computerized test, whereas most of the students are exposed to pen and paper test and even though they know the solution for the question, they are not able to answer the questions due lack of keyboarding skills.

4. Flexibility/Adaptability/Managing Multiple Priorities: - Deals with the ability to manage multiple assignments and tasks, set priorities, and adapt to changing conditions and work assignments.

5. Interpersonal Abilities:- The ability to relate to co-workers, inspire others to participate, and mitigate conflict with co-workers in the given time spent at work each day.

6. Leadership/Management Skills:- While there is some debate about whether leadership is something people are born with, these skills deal with the ability to take charge and manage co-workers.
7. Planning/Organizing:- Deals with the ability to design, plan, organize, and implement projects and tasks within an allotted timeframe. Also involves goal-setting.

8. Problem-Solving/Reasoning/Creativity. Involves the ability to find solutions to problems using creativity, reasoning, and past experiences along with the available information and resources.

9. Teamwork. Because so many jobs involve working in one or more work-groups, ability to work with others in a professional manner while attempting to achieve a common goal is considered to be one of the important criteria. This skill is one of the most preferred skill for any employer and is been tested in various stages Group discussion, Interview etc. The recruiter is very specific in not selecting a candidate who shall not fit in to their group. This is one of the reason why the team leader or the group head where the prospective candidate will be placed during work come directly to meet them before selection.

Reasons for low level of employability skills among students

1. Academic quality:

No educational institution can survive unless it can attract competent young teachers into its fold. All professional colleges face serious problems in this regard; they cannot compete with the outside market in terms of financial package. Non availability of qualified faculty forces the educationist to appoint fresh hand on teaching. Lack of exposure and experience makes the quality of input poor. The other reason is some of the teachers use readymade notes which were prepared by them when they were students; it is neither updated and are transferred to the students. Decades ago teaching was considered to be noble profession and compete tent people only took up teaching as carrier, but today teaching is mostly preferred by those who are not able to get a job in the industry.

2. Non relevant curriculum:

The world being changing so fast, but the reforms have not been implemented at the same phase. Most of the curriculum followed by university and its affiliated colleges were prepared a decade ago and still been thought. These syllabus are not industry specific and don’t meet the need of the industry which reduces the level of employability of the students.

3. Teaching learning process in mother tongue:-

Most of the professional colleges teach the subjects to the students in their mother tongue, Mostly the teaching learning process is in mother tongue, they communication language in the campus is language which is spoken widely in that region and not English. Students equip them self in the subject by the advantage of higher understanding due to mother tongue, but when they are tested for their communication skill in the selection process they fail or rejected.
4. Mushroom growth of institutions

Each year, India produces almost twice the number of engineers produced by the US and a little less than twice of all that Europe produces. It is great to note that India has one of the world’s largest most qualified pools of technical manpower. However, when we look at the employability, we are far behind. This is because Engineering colleges are mushrooming and the quantity of technical graduates pass out every year from these educational institutions. The way quantity of graduates is increasing the quality is not increasing. We are compromising with quality for the sake of quantity. Engineering education is about knowledge, know-how, and character. Mushrooming of educational institutes in India couldn’t keep up the quality of education.

5. Gap between Academy and Industry

One of the main reasons for the lower employability skills among students and non availability of talented aspirants to industry is the gap between academy and industry. The interaction and participation from both sides are lower. Industry has variety of needs according to the changing job nature but this not communicated or accepted by the academy, they offer a tailor made course and curriculum which is not relevant to the industry need.

Conclusion:

Employability skills and personal values are the critical tools and traits students need to succeed in the workplace -- and they are all elements that they have to learn, cultivate, develop, and maintain over your lifetime. "If colleges want to improve the employability of their graduates, they have to focus on reducing these important skill gaps through improvements in curriculum and teaching methods." said Hiroshi Saeki, an analyst at the World Bank. He added "Most important, graduates have to be able to formulate, analyse, and solve a real life problem using standard engineering techniques,". Mere academic abilities alone will not be adequate. What is essential is something beyond academic domain such as communication skills, problem solving skills, communication skills which are known as employability skills. When applicants possess these skills then it becomes easier for employers to train other technical skills easily. To sum, both educational institutions and industry should work together for enhancing employability skills as it is rightly said that you need to clap with both hands to get the results.

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