

# Developing Professional Skills in Technical Manpower with a Perspective View of Employment Requirement

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**Abstract--**It has been found that development in technical manpower is progressing very sharply. However, the technical manpower is produced more than the requirement; the main aspect that is qualitative is missing somewhere while thinking about the output of the same. This qualitative aspect is very important as regards to the technological change in present scenario. The performance of the technical manpower becomes important rather than only getting degrees by themselves. Only getting degrees is not at all important in the present state of art of globalization. Today, the technology is almost jumping every moment towards the informative and automation culture. In this highly competitive era, skill becomes important in technical manpower. Highly informative and automated technology requires tremendous knowledge bank and the skill to survive. This skill is required to get developed in the present technical manpower to stay with the changing technological environment. In this paper, I have tried to focus on what kind of the skill is required and how it can be developed in technical manpower.

## I. INTRODUCTION

If we look at the last decade, we can easily find that the technical education has got a boom day by day. A lot more engineering colleges and polytechnics have been opened up to fulfill the tremendous demand of technical manpower. More and more effort put back to fulfill the quantitative requirement. But, less effort provided for qualitative requirements. The result was increase in unemployed technical manpower. Today, employer's expectations have got changed and because of changing technology, skill and performance required in the employees are required to be upgraded. Poor skill or poor performance isn't tolerable. To be a part of the technology today, much more intelligence and intellectual nature is required. Technical manpower is at the heart of prosperity of any country and so they are looked with the bunch of high hopes and expectations. So, enough of skills and performance is expected out of them. Such skill is required to be developed in the technical manpower to

make them more efficient and intelligent to cope up with any difficult situation.

## II. OBJECTIVES

Technical manpower can be made more skillful to fulfill certain definite objectives. The development of skills in technical manpower is carried out to make them more competitive, efficient, effective and intelligent so that, they can accommodate themselves with the changing technological requirements. They are required to make more skillful to be a part of progressive dynamic and intellectual technical world. As the technology is changing day by day and as it's becoming more informative, knowledge of computers, their applications, their uses, their database, their programs, their soft wares and their maintenance is very important. If this knowledge is not available, a technical man cant cope up with the situation arising with this new technology. Knowledge of latest technology such as nano technology, mems, artificial intelligence, algorithms, simulations etc is very important to put hands together with the latest technology. More about, today, industries are surviving with the complex problems of inventories, lab our management, financial management, material management and human resource management. To come out of this kind of situation, managerial and behavioral skills are required. To solve the problems of design, processes, equipments and tools, technical skill is required to get improved. Now a day, employer's expectations have been grown up so high. They want and demanding more and more such skills in the present time. All these discussions lead us towards the objectives of developing skills in the technical manpower.

## III. IMPORTANCE

To improve performance of the technical manpower, they must be equipped with the technical skill, managerial skill, behavioral skill, human relation skill and communication

skill. These skills are required to get developed in them to make them more effective, efficient and intelligent. Their employability can be increased by developing these skills and improving their performance. Developing these skills in the technical manpower increase their ability to resolve any problem in any damn difficult situation. These skills improve their ability, their confidence and their tact. These skills enrich their analytical solving capability, their tactful behavior, their communication ability and their managerial ability. These skills improve their personality, their attitude, their look at the situation and their resolving power. These skills improve their technical know how, their area of working and their methods of human relations.

#### IV. SKILLS

Development of a technical manpower solely depends on the acquiring level of skills and potential in the various fields of engineering. One can be a good technical person by creating ability to perform well with the acquired skills in the different fields and by solving the problem arising in difficult situations whenever possible.

In a technical manpower different skills are supposed as technical skill, managerial skill, behavioral skill, human relation skill and communication skills. All these skills are termed as professional skills which are desired highly in any of the technical manpower. With the help of these skills, a technical person can be able to handle any critical situation on the floor and in human life.

##### A. Technical Skill

A technical manpower should possess the skill in the areas of manufacturing and computer science. Technically he must be sound enough to solve any manufacturing problem and to handle the computer with enough of knowledge and ability. He should have sound knowledge of design, manufacturing, process, machines, tools, materials and quality. He should utilize information technology in the business so well as technology now a day, changing every moment involving so much of information technology. He should have knowledge of computer applications, software to resolve the technical problems. He should have knowledge of analytical solution, numerical methods, presentation techniques and related skills expected in a technical manpower. With the help of this skill, a technical person develops ability to solve a technical problem, utilize intelligence for better design and process, and saves cost improving the product.

##### B. Managerial Skill

Managerial skill is equally important as much as technical skill because it is impossible to succeed in a business with only technical skill. Without the managerial skill, a technical person may fail in the business. This skill is ranked as most important. A technical person is required to manage the projects. Present business system is project oriented and for that, managerial skill is so much important. In management, so many areas are required to be controlled such as material, financial, inventory, marketing, quality and human resource management. Apart from all these basic

areas, specific areas such as strategic, investment, disaster, safety and foreign trade management arte also required to be controlled. A technical manpower must have enough knowledge of all these areas of management and should possess ability to solve the problem arising in these various areas of management. This skill develops problem solving, decision making, managing resources, leadership and such abilities. With the help of this skill, a technical person can achieve the goals and objectives defined by the employers.

##### C. Behavioral Skill

Commitment towards work is very important. One has technical & managerial abilities but, if he doesn't have behavioral attitude, he can't succeed in the business. To get adjusted in the existing situation and to adapt new technology are the important aspects of this skill. Learning has no bar on age, qualification or position.

One must continue to learn while working on any of the project. Every situation teaches us new lessons. Change in technology should be viewed carefully and should be accepted within the organization frame. To achieve higher productivity, positive attitude is very important as it wins half the battle with confidence only. To motivate self and others is the part of the success. To be a good listener, to present the views pleasantly and to accept the mistakes and correct them are a few good example of this skill.

##### D. Human Relation Skill

Effective management is a combined effort of a group of people. Better human relation leads to a successful management and organization. Interpersonal skill plays important role in developing the human relation. To get work done and to complete a project is not at all an easier task. To achieve this, a pleasant willing and better interpersonal relation helps a lot. With the help of this skill, a technical manpower can add a new feather in his cape of success.

##### E. Communication Skill

To understand what other say and to get it done in totality can't be achieved without communication skill. This skill gives a sense to the words communicated. This skill achieves task done in less words and in correct way. A technical person can be considered poor if he doesn't have this skill. Effective communication skill builds a high level of confidence, pool of trust and better interpersonal relations.

#### V. DEVELOPMENT

All these skills can be developed in a technical manpower by a few useful techniques. By implementing these techniques, surely, the skills discussed here can be improved to a possible extent and peak value. They cost less, beneficial and surely gives unbelievable positive results. This high degree of improvement can be achieved by increasing knowledge, developing positive attitude, professional attitude, personality behavior and manners. This development can be carried out by effective training, conducting conferences, workshops and seminars,

developing professional attitude, paper presentation, research work, conducting competition and quiz, conducting industrial visits and arranging expert lectures.

#### A. Training

It is addition of extra knowledge in specialized area to make a technical person more efficient in that particular area. It may be on job training, instructional training, classroom training, short term training, long term training, theoretical training, practical training etc. Depending on requirement, different types of training can be provided to enhance various skills. It may be on paper or with the help of audio-video equipments. It may be in classroom or in industry.

#### B. Professional Attitude Development

Knowledge can be enriched by training while attitude can be developed by increasing confidence level. This can be increased by giving the problem for solution in specified stipulated time limit. They should be given liberty to solve problem analytically, by applying brain storming, by using numerical method or with any specific method. This activity will develop their interest, search techniques, solution techniques and confidence. Their personality can be developed by making their look more impressive, executive clothing sense, modern business style, meaningful impressive speech, effective body language, better quality voice and polite manners. They should be given reading, speaking, writing, performing and analytical reasoning exercises.

#### C. Paper Presentation & Research Work

The activity of paper presentation develops research attitude and confidence level. They should be given latest topics to come out with research on it from books, magazines, journals, proceedings and internet. They should apply brain storming, intelligence, knowledge and find out case studies with positive solutions with applied research and with proper presentation attitude and style. This activity will develop confidence level, decision making power, presentation ability and personality with high degree of skills.

#### D. Competition, Quiz Group Discussion

By organizing competition and quiz, their knowledge bank can be enriched with increasing their initiative ness. It makes them taking interest in developmental activities and increase curiosity. These activities also improve personality, skills and intelligence. Technical and General quiz should be arranged with Group Discussion by giving them appropriate topics to complete them in stipulated time period. These activities bring a lot more awareness of present happening in the world of technology.

#### E. Seminars, Workshops & Conferences

Let them to participate in seminars, workshops and conferences to make them more effective, skillful and intelligent. They give a global platform and global knowledge of what's happening in the world. Participation in such programs brings up creativity, charm, initiative ness

and positive attitude and problem solving capabilities. Such programs make people get together and share their knowledge and give freedom of expressing thoughts and reviews. Such events develop creativeness, manners and personality along with skills.

#### F. Expert Lectures

Expert lectures should be arranged to increase valuable knowledge of experts in specialized areas. Expert personality from various fields should be invited to deliver the flow of what they have gained and how along with their experiences. They should open the secret of their success and the ways how they have carried out various achievements in their field. Such events give us direction to success and inspiration to do something for ourselves, society and the nation.

#### G. Industrial Visits

Industrial visits or site visits increases the practical knowledge and the understanding of how theories are applied in actual practice. Such visits teach more than what one can explain in classroom for hours. Such visits should be arranged frequently in different areas of application of technologies so that more experiences can be gained in practical.

## VI. CONCLUSION

The engineering curriculums discussed here are most important and responsive to the present industrial requirement. These are flexible too to accommodate technological changes of every next moment. Technical education needs to be improved to develop motivated high skilled technical manpower with sound knowledge, sharp intelligence, and boost of smartness, pleasant positive attitudes, innovative creativity, future vision, strong confidence, attractive personality and well managed manners. All such developments can give a guarantee of respectful, satisfactory employment and graceful life.

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