

## ROLE OF TECHNICAL INSTITUTES, INDUSTRIES AND PROFESSIONAL BODIES IN CONTINUING EDUCATION

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### SYNOPSIS :

The paper highlights the need for Continuing Education in general and for Technical Education in particular with a special focuss at Polytechnic level and the role played by organizations like Technical Institutes, Professional Bodies and Industries. The paper further detail out that what resources can be pulled from these organizations and what sort of approach to be adopted in conducting Continuing Education Activities With Optimum Utilization of Resources.

### INTRODUCTION :

#### WHAT IS CONTINUING EDUCATION ?

Education, we all know, is preparation for life. It has also to co-exist with life and progress alongwith it. With the passage of every year, life becomes more and more complex. It frequently calls for new adjustments, new attitudes, new social understandings and new skills. To cope with this age of continuous change-rapid and intricate, ONE HAS TO BE A STUDENT THROUGHOUT HIS LIFE. This means

that the traditional attitude of looking at education as terminal stages at different levels is wrong and should be changed.

We live in a world that is changing before our very eyes - a world in which the population explosion, profound economic and social transformation resulting from technological developments are so many forces making for DEMOCRATIZATION of Education. At the same time the acceleration of scientific progress is resulting in the more and more rapid obsolescence of knowledge. With all this it is out of question for education to be confined as in the past to prepare the young once for all, for a given type of existence - This means that it must be continuous and omni-present. It must no longer be thought of as preparation for life, but as A DIMENSION OF LIFE, distinguished by continual acquisition of knowledge ceaseless re-examination of ideas. Thus the structure of traditional knowledge is rendered obsolescent for more slowly and new knowledge becomes useable only with much greater innovative efforts.

Therefore, the concept of

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[Paper presented at ISTE convention - 1994.]

Education can be divided into three aspects :-

- (1) Liberal Education based on individual efforts.
- (2) Professional Education requiring constant improvement of professional skills.
- (3) Organized General Education for all through Recognized Agencies.

As for as professional education is concerned in all developing countries, efforts are being made with their resources to apply the latest developments in science and technology to industry etc. It is felt that the members of the professions like Engineering, Technology, etc. can not remain content with their education alone, they need refresher courses to up-to-date development in the field of their specialized knowledge and techniques of work.

Thus what is learnt at Institute level under formal system is not sufficient to equip men or women for the great social, economical and technological changes that will occur during their lives, knowledge is now expanding so rapidly and changes are taking place at such a rate that a man is born into one kind of world, spends his working life in another and then in his old age lives in a different kind of world again.

Further in many areas, the content of knowledge becomes rapidly obsolescent and even where it has not become obsolescent, it's relevance may have changed with the passage of time.

#### NEED FOR CONTINUING EDUCATION :

In a country like India poverty is a more decisive factor in determining the time and the resources that can be

devoted to Education. Consequently the inability to secure Higher Education in general and Technical Education in particular, cuts short many a promising career. Moreover, since the facilities generally available for Technical Education are also very unsatisfactory. Thus a system of organized Continuing Education can help to overcome the handicaps created for those who are unable to secure better facilities at large scale.

Therefore, Continuing Education should be based on consideration of needs, not only as seen and felt by the people themselves but also as revealed in multi-disciplinary approach to the analysis of the technological problems.

The need to have facilities for continuing education whether in general education or technical education arises mainly for three reasons :

- (1) A fairly large proportion of the population who could benefit from education misses the opportunity on account of economic compulsions at the time when such education is normally taken.
- (2) Those who go through a process of formal education but after completion realise that they have made wrong choice in regard to the subjects or prove to be late starters.
- (3) Rapid advances in a subject and or when the training is best imparted over a period of time - with the intervals utilized by the trainees for gaining experience and insight.

Thus on account of rapid scientific and technological advances, the content of Technical Education needs to be re-

vised and up-dated at frequent intervals. Continuing Education has, therefore, come to be associated in practice with the provision of facilities for higher education to meet these requirements. It's responsibility is to fill up the gaps between the existing expertise available in the organized Institutes and the advancement taking place due to emerging technologies.

Thus courses through Continuing Education have become necessary so as to improve individual competence in the various professions. This system can give an opportunity to those who cannot afford to be in full time residence to earn diploma and degree by private study.

Here I would like to focuss my attention on POLYTECHNIC SYSTEM where lot of improvement can be done through continuing education. One of the major resources of Polytechnics are it's HUMAN RESOURCES which need to be developed by UP-DATING their KNOWLEDGE. This can be achieved through this new approach in education. Apart from improving the professional skills of already skilled and imparting productive skills to the uneducated.

In Polytechnic System the major objective will be :

- (1) To enable an already educated to develop new fields of interests.
- (2) To prove general stimulation to the intellectuals.
- (3) To enable learner to learn on his own.

It would be well to recognize that there is nothing that gets so quickly dated and obsolete as vocational/tech-

nician trainings.

## ROLE OF TECHNICAL INSTITUTES, PROFESSIONAL BODIES AND INDUSTRIES.

The facilities of Continuing Education are in principle supposed to be made available in order to economize the cost and facilities involved in formal Technical Education. As we are aware that Technical Education is expensive not only in terms of physical inputs (equipment, machinery, setting up of labs./workshops etc.) in accordance with the advancement of technologies but also in terms of HUMAN RESOURCES (trained, well qualified faculty both teaching and supporting). Therefore, setting up the necessary organizational infra-structure for Continuing Education in this specialized field has to be considered in the light of other no less important consideration of :

The RESOURCES AVAILABLE for such education as a whole are SCARCE, one needs therefore to plan very carefully so that facilities are absorbed by LARGE PROPORTION of the population.

The demand for Higher Technical Education in India now is to large extent simply a reflection of the unemployment situation and consequent compulsion on everyone to try and gain competitive advantage over others in the labour market - This may shift the focus from content and QUALITY to the NUMBER.

We need in-service training programmes so as to enable teachers to respond to new challenges. As in Technical field, the new challenges are multiplying.

Once the alternative outlets in terms of utilizing the facilities of Technical Institutes, Professional Bodies and Industries a system of Continuing Education could be set up to meet more genuine and important requirements of this field. Such a system should aim to correct the deficiencies of the facilities now available generally for Technical Education and to help individuals with adequate maturity and motivation to keep them abreast with the advancement in their respective areas.

Polytechnic, Engineering Colleges, I.I.Ts, Professional Bodies and Industries have all possible infra-structure in terms of Labs./Workshops, human expertise both at Professional as well as Industrial level. So these organizations can prove to be the BACKBONE of Continuing Education. As we know one of the objectives before this system of Education is to keep pace between Technical Education and rapidly changing technology, to cope up with the challenge of Science and Technology. Not that new courses have to started but the existing lot available Human Manpower has to be up-graded and REFRESHED CONTINUOUSLY in the knowledge and skills. However, to achieve this objective the Technical Education adopted the proposed scheme of Continuing Education at R.E.C.T.T.Ts, I.S.T.E. etc. as early as it started at University level for general education. But in the field of Technical Education it showed very slow progress as compared to general education. There may be many reasons but one of the major reason seems to be non-availability of adequate resources within one organization due to the following reasons :

- (1) Technician Education is very expensive as compared to General Education.
- (2) It gets quickly dated and obsolete.
- (3) Development of it's resources (Human Resources) are time consuming.
- (4) Implementation needs high expertise.  
(Lack of Professionals)
- (5) To keep pace with the changing technologies.

In order to give new start to Continuing Education in Technical field, Educationists and policy makers should change the mode of thinking by adopting the NEW APPROACHES of :

- (I) Systems Approach.
- (II) Inter - Organizational Approach
- (III) Resources Sharing Approach.

It means, pulling out resources from Technical Institutions, Professional bodies and Industries together to cater to the existing needs in technical educations so that REQUIRED TRAINED MANPOWER is produced for contributing in the ECONOMIC GROWTH AND DEVELOPMENT OF THE NATION.

What I concieve is that SYSTEMS APPROACH can be used at Continuing Education Cell as we know the main mechanism of this approach are :

- INPUT.
- PROCESS.
- OUTPUT.
- FEEDBACK.

One of the greatest advantage of the approach is it's mechanism of FEED-

BACK which can always be utilized as an INSTRUMENT to modify and DEVELOP the quality of INPUT and PROCESS in order to ensure the best results in terms of QUALITY and desired OUTPUT which is the main objective to be achieved through Continuing Education.

Therefore, Continuing Education while arranging any course of a particular nature for Technical Education the resources drawn from above mentioned organizations can be of the following nature :

**TECHNICAL INSTITUTES :**

- Academically Qualifie Teaching Faculty.
- Existing Labs/Workshops.
- Lecture, Seminar and Conference Halls.
- Audio-Visual Aids.
- Learning Material.
- Library Facilities.

**INDUSTRIES :**

- Latest technological know-how.

- On the job training.
- Feel of actual situation.
- Industrial exposure.
- Availability of Technical Experts.

**PROFESSIONAL BODIES :**

- Professionally qualified personnel.
- Professional feel of environment.
- Intership facilities.

How to utilize all these resources is shown in a diagram-I based on SYS-TEMS APPROACH. What I believe is that this type of approach will not only ensure desired quality output and help to overcome the financial constraints in the country at present, but make sure the optimum utilization of resources.

I hope that my ideas will prove stimulating to those who are engaged in carrying out the activities of Technical Education through Continuing Education. The response and reaction to my proposal will be an appreciation to my views.

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