

# Human Resource Management in Technical Education: Status in India

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**Abstract**— India has made remarkable progress in engineering and technical education over the last two decades. In a teaching-learning environment a teacher plays various roles. Ramsey (1999) says, “The role of an effective manager is to create a climate that welcomes, supports, and rewards innovative thinking and problem solving”. A teacher provides students’ motivation and interest for life-long learning and urges them to become autonomous learners. Technical education is widely recognized as an important part of the total education and training system. The real challenge is how to reposition it in response to the global forces driving change in a knowledge based economy. Since Independence, the Technical Education System has grown into a fairly large-sized system, offering opportunities for education and training in a wide variety of trades and disciplines at certificate, diploma, degree, postgraduate degree and doctoral levels in institutions located throughout the country.

**Key words:** Technical Education, HRM

## I. INTRODUCTION

Education is considered as one of the significant essentials of the national development effort and Higher education, of which Technical Education is a vital constituent. Technical Education covers presently courses and programmes in engineering, technology, management, architecture, town planning, pharmacy, applied arts & crafts, hotel management and catering technology. It is extremely important for the nation, as it is a powerful means to fabricate knowledge-based society. The activities of a Teacher should be centered towards developing India as a knowledge society. Continuous endeavor of the teacher can easily improve the quality and relevance of technical education. Apart from the role of a lecturer, a good teacher in Technical education system has the ability to change its society and country. Researches also illustrate that teachers have a significant impact on students’ achievements. Therefore, teachers should be ready to take up the life-long learning to update their knowledge and skills and transformed the gained knowledge and skill to the society for economic development.

In short, a good teacher should play the role of a MENTOR. The responsibility of Mentor is to improve the performance of students keeping in mind the above mentioned points through counseling, motivation, improving their teaching skills, maintaining cleanliness and discipline, creating interest in their studies etc.

## II. BACKGROUND OF THE STUDY

### A. Defining ‘Teacher’

Teachers have been in existence for thousands of years, influencing the lives of countless people. There are countless views on definition of a teacher and what is involved in being good at teaching as well. Though any definition is not sufficient to explain the role of a teacher,

for generalization, we consider Beidler’s (1997) concept. According to Beidler, teacher is “a person who teaches” and teaching as “giving systematic information to a person or about a subject or skill.” Hence a teacher should provide information and impart knowledge to students. However, a teacher is more than an instructor, a teacher assists as Information provider, Learning Facilitator, Mentor, Student assessor, Curriculum evaluator, Curriculum and course planner, Teaching resource material creator, Study guide producer.

### B. Present scenario of Technical Education

To explore the present scenario of technical institutions in India we will take into account the statistics mentioned in a report prepared by the Government of India, Ministry of Human Resource Development (MHRD), Department of Higher Education in September 2011. In addition to the various areas of amenities, the number of AICTE approved institutions in the country during the last decade has risen almost doubled which rose from 4491 in 2006-07 to 8361 in 2011-12. The growth of the institutions for the last five years is shown in the diagram below:

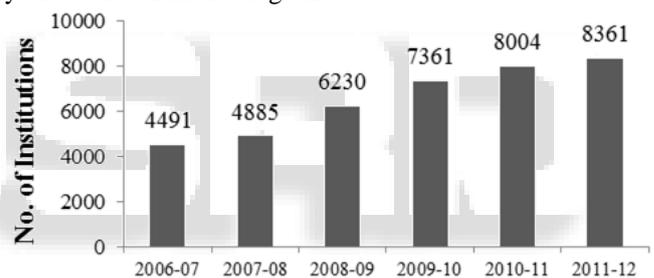


Fig. 1: Image showing Number of Technical Institutions over years

Also annual intake in Polytechnic Institutions rose from 417923 in 2007-08 and 1083365 in 2010-11, implying that youngsters are keener to technical education overtime. The number of students’ intake in Diploma level, for last five years, is shown below. It should be noted, that all Polytechnic Institutions have not entered data for the study made by the Govt.

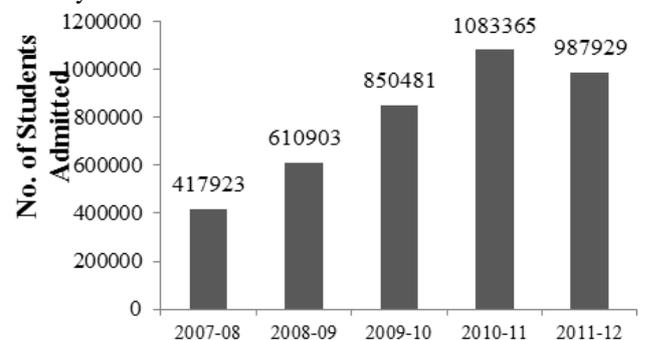


Fig. 2: Image showing Intake for Polytechnic

According to the data of MHRD, regional distribution of intake capacity of AICTE approved institutions in Under-Graduate, Post-Graduate and Diploma engineering is as follows:

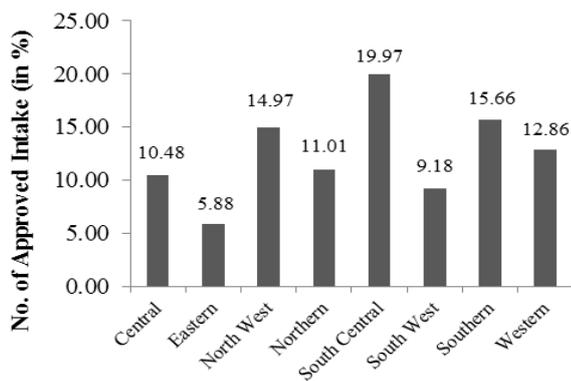


Fig. 3: Image showing approved intake in Technical Institutes Region wise

From the above figure it can be concluded that mainly Southern area of in the country is opting for technical education, compared to other regions of the India, registering 19.97% of intake approved in South Central and 15.66% in Southern segment. We also observe that Western region recorded lowest percentage of sanctioned intake strength, i.e., 5.88%, implying the status of technical education is not satisfactory in this county.

### C. The Problem Statement

Recent studies have shown conclusively that teachers are motivated more by intrinsic than by extrinsic rewards. Pastor and Erlandson (1982) conducted a survey which found that teachers perceive their needs and measure their job satisfaction by factors such as participation in decision-making, use of valued skills, freedom and independence, challenge, expression of creativity, and opportunity for learning. Studies validate that fact that Indian education system can produce a good student only, but not a good citizen of India.

The apparent question that comes up in our mind is - Why teachers are not playing their roles towards learners? Therefore, educators are not contributing much to fabricate future technical professionals. This paper tries to explore the answer of the above question and also put forward some proposals to eradicate the crisis.

### D. Methodology

Information has been sourced from various books, trade journals, government publications, newspapers etc. and research is descriptive in nature. Data presented in the form of tables and analyzed in form of percent trends and chart.

## III. DISCUSSIONS

As studies suggest there are numerous problems in technical education. Nevertheless the main problem with educators is lack of motivation regarding their profession. Along with this, deteriorating quality in technical education elicit the circumstances still further.

### A. Motivating Teachers

“There are three things to remember about education. The first one is motivation. The second one is motivation. The third one is motivation.” -Terrell H. Bell

A teacher may be the strongest motivating force in a student’s life. If a teacher successfully achieves student motivation, then he or she has met an essential teaching goal. A good teacher is like a good coach—always

encouraging and supportive. Teachers should not discourage by students’ struggles, but, instead, are inspired by these struggles to motivate students. Motivation in teaching comes from an innate need to better students’ lives; being a teacher means to relentlessly strive to motivate students to succeed.

As a motivator, teachers also have an innate ability to guide students in education and career choices. This is where teachers excel as counselors. Many students will question their future; through wisdom and experience, teachers guide them in the best direction to success. Not all students will determine their line of business immediately; therefore, teachers must continuously guide students throughout their years of education. A teacher’s ability to direct is a powerful tool.

With strong motivational and counseling skills, teachers become a powerful ally for students experiencing difficulties. School can be a constant battle for students, many of whom rely on teachers as supporters. A teacher who turns his or her back on a struggling student is a deserter to the student and a failure to the teaching profession. This does not mean a teacher must become a student’s best friend; students often do not want a friend from their teachers, but, rather, an ally. As an ally, teachers strive to provide a positive and comfortable environment for students. In doing so, students’ struggles with education and frustrations with school are often reduced.

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To motivate teachers, a well-designed feed-back evaluation system should be implemented, which in turn, provides teachers to assess their own professional growth. An improper evaluation system can be grievous, pitting teachers against administrators and engendering anxiety, mistrust, and dissatisfaction. Administrators should encourage teachers to take part in the design and implementation towards academic excellence.

Accordingly, a good evaluation system should reflect respect for individual worth and dignity by encouraging teachers to set personal and academic objectives. An evaluation system should also foster imagination and creativity, recognize work well done, and involve both self-appraisal and appraisal of others.

One major objective of teaching-learning is to help students who are academically weak to bring them in the track. The role of an institution to alleviate weak students in Technician Education:

- 1) identifying students who are facing academic problems;
- 2) identifying the causes of students’ problems;
- 3) Tracking students’ progress.
- 4) providing lots of success oriented activities
- 5) relate the topic with real life situation

A number of ‘institution factors’ also underlie poor performance of students such as:

- 1) poor teaching either because of poor domain knowledge, or poor pedagogy including a lack of interaction and creativity in the classroom;

- 2) improper sequencing or unevenness of curricula or syllabi and related issues;
- 3) inadequate exposure of students to 'real world' situations before graduation, such as visits to industries; and
- 4) Inadequacy of discussion on performance, counseling and mentoring. As it is the combination of factors that ultimately results in 'educational wastage,' there is a significant duty on institutions to address both student and institutional issues that cause students – ranging from 10 to 25 percent in the final year - to perform poorly.

If we seriously want to successfully motivate and keep the teachers motivated, we should Make Opportunities to Inspire Value, Attitude, Talent, and Enthusiasm!

#### B. Mentoring – New Way to Skill Enhancement

"Mentoring" is a process that always involves communication and is relationship based. Mentoring Services takes a flexible, individualized approach to addressing each student's needs. The mission of the Mentoring process is to support the academic, emotional, social and cultural development of students. We value an atmosphere that is welcoming for all individuals. In many secondary and post-secondary schools, mentorship programs are offered to support students in program completion, confidence building and transitioning to further education or the workforce. There are also many peer mentoring programs designed specifically to bring under-represented populations into science and engineering.

It is observed that some students are absenting from the class frequently. The causes of absenteeism of students are -

- 1) Lack of subject interest
- 2) Lack of personal interest in studies
- 3) Non availability of opportunities for entertainment
- 4) The mental capacity of a student does not matches with the course opted.
- 5) Lack of parental attention
- 6) Lack of attitude
- 7) Lack of motivation from the part of the teachers and parents.
- 8) Poor teaching skills of a teacher also keep away student from the college.
- 9) Lack of confidence
- 10) Attending private tuitions during Institute Hours.

To deal with above mentioned shortcomings and also to foster the inner knowledge of a student, we need to get a hand of a MENTOR only. A mentor is a guide who can help someone to find the right direction and who can help them to develop solutions to career issues.

"Mentoring is to support and encourage people to manage their own learning in order that they may maximize their potential, develop their skills, improve their performance and become the person they want to be."- Eric Parsloe

So, by playing role of a mentor a teacher is actually enhancing his/her skills in different zones of professionalism. Becoming a mentor can enrich a teacher's life on a personal and professional level by generating following skills:

- 1) Build leadership skills – It helps by developing the ability to motivate and encourage others.
- 2) Improve communication skills – Students come from different background having language problems. Sometimes they cannot communicate because of this. Mentoring compel us to find a way to communicate more effectively as we steer our way through the mentoring relationship.
- 3) Learn new perspectives – By spending time with someone less experienced and from a different background, we can gain a fresh perspective on things and learn a new way of thinking.
- 4) Gain personal satisfaction - It can be very personally satisfying to know that we've directly contributed to someone's achievement.

#### C. Quality in Technical Education

The economic progress of a country is strongly linked to the Quality of education — more importantly in technical education. Formal technical education in the country can be traced back to mid19<sup>th</sup> century and it got momentum in 20<sup>th</sup> century with the setup of Constitution of Technical Education Committee in 1943.

National Policy of Education (NPE), 1986 highlighted the need for strengthening the Polytechnic Education System to cater to the need of emerging industries and technologies. In order to maintain the standard of technical education, a statutory authority- The All India Council for Technical Education (AICTE) - was set up in 1945. AICTE is responsible for planning, formulation and maintenance of norms and standards, quality assurance through accreditation, funding in priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring coordinated and integrated development and management of technical education in the country.

We should keep in our mind that the following areas towards academic quality issues:

- 1) Teaching-Learning activities
- 2) Value addition to teams, committees, projects
- 3) Leadership development for faculty members
- 4) Continuous improvement of academic programmes.
- 5) Feedback mechanisms for students & faculty members
- 6) Interdisciplinary projects
- 7) Infrastructural facilities such as resourceful library, laboratories and workshops.
- 8) Personal and professional capabilities development of the students- technical writing and oral communications to their professional career, leadership quality team work, self-learning, continuous total quality improvement and ethics and values.

Programme and Curriculum design for the courses are developed by the West Bengal State Council of Technical Education, the affiliating body in collaboration with industry, academician and faculty members taking into consideration the targeted outcome and programme effectiveness is found adequate.

Thus, more emphasis has to be laid on quality improvement measures in Indian technical education system

through adoption of proactive and innovative strategies for meeting the global challenges posed by ever increasing and rapidly changing technological advances. The use of information and communication technology in educational transactions serves to improve the quality of teaching learning. Curriculum must undergo mandatory revision to keep with the current economic needs. Common minimum curriculum or Model Curriculum, with emphasis on 'Core courses', needs to be developed.

The National Board of Accreditation (NBA) was initially established by AICTE, in 1994, an autonomous body for periodic evaluations of technical institutions & programmes according to specified norms and standards as recommended by AICTE with the objective of quality assurance and improvement.

#### D. Scarcity of Efficient Teachers

Good quality teaching faculty in technical education is not only important but essential for the country's progress. Good teaching faculty is the most valuable resource, the pivot around which the whole teaching- learning process revolves in an educational institution.

Shortage of good quality faculty affects the technical education most adversely because personal supervision of each student is an essential feature of the teaching-learning process in this area.

This pronouncement, revealed in the most recent government assessment of faculty shortage across the country, has come as an alarm. The shortage of faculty affects the students in many ways. When there are not enough teachers, more students are often assigned to a single project, leading to a lack of attention from teachers and an eventual dilution in quality. Besides, the choices before the students for their elective subjects are considerably reduced.

'Good talent has been sucked out of the academic stream and students of merit do not want to even consider teaching as an option because there are far more lucrative career options with multinationals.' Now a day, fresher candidates are not opting for teaching profession. Following reasons can be considered:

- 1) Not many students want to join academics these days, a growing economy, more options and better pay packages in the corporate sector are some of the reasons why bright candidates are not opting for teaching.
- 2) Unattractive pay is another reason for the dearth of quality faculty in engineering colleges. Although the AICTE has stipulated a pay scale, not all private engineering colleges in the country offer that pay to the faculty.
- 3) The atmosphere in the teaching profession has to be improved in a way, which can act as a magnet, in terms of bright future, for aspirants.
- 4) In most technical institutes, the ambience acts as a deterrent and people want to run away from teaching.
- 5) Research & Development has to be made more attractive, giving an outer exposure to Faculty.
- 6) Restricting Faculty members in their teaching area only, Institutions are actually slowing down the up gradation of a Faculty. Like in the West, academicians should be encouraged to take up

consultancy projects for the industry that would help supplement their income and provide an incentive and make teaching more attractive.

- 7) Thrust should be given on training, especially in Engineering Education, of teachers as well.

#### E. Skills and Employability

A major concern is the lack of employable skills in our technical education students. We are looking at the country's large youth population as an advantage point. But in order to leverage this demographic factor, we need to ensure that our youth are empowered with the right skills to meet the challenges of knowledge based market economy. Based on the identification of the skill gaps in different sectors, possible approaches, such as, setting up of finishing schools, offering courses for enhancing employability are proposed. Some strategies for increasing employability factor, which are either faculty-centric or student-centric are: Industry Institute Student Training Support, Industrial Challenge Open Forum, Long Term Student Industry Placement Scheme, Industry-Institute Continuous Interaction Scheme-Industry, Industry-Institute Continuous Interaction Scheme-Faculty, Intensive Interaction - Train The Teachers, Industry Training Programme And Support Scheme, Centre for Qualified Manpower, National Employability Portal, Tax Benefit for Teaching Laboratory Support. MHRD has launched a major initiative in the form of National Vocational Education Qualifications Framework (NVEQF) which is the proposed overarching academic architecture for vocational education in the country. The idle infrastructure of existing institutions and building with the industry could be utilized for speedy implementation. Also vocational courses would have a component of general education also which would facilitate mobility into and from mainstream education. Also, being modular in nature it would provide multiple entry and exit options to the students. NVEQF will be fully compliant with the overall National Occupation Standards (NOSs) being created by NSDC for Skill Development in the country with the involvement of the Industry.

#### IV. MAJOR FINDINGS OF THE STUDY

The major findings of our study are as follows:

- 1) Nowadays Faculty members fail to motivate students and thereby not contributing much to this noble profession. They are considering their achievements by popularity among students rather than respect from them. They are just coming into this profession due to lack of employability in other sectors and hence are not passionate enough to teach resulting negligence in educating future professionals. Therefore they not motivated enough to follow.
- 2) Mentoring is a process for the informal transmission of knowledge and the psychosocial support perceived by the recipient as relevant to work, career, or professional development. A mentor's main purpose is to help a young person define individual goals and find ways to achieve them. Since the expectations of each child will vary, the mentor's job is to encourage the development of a flexible relationship that responds to both the mentor's and the young person's needs. Today's educators are not undertaking this

obsession acutely resulting into major gap between student and teacher.

- 3) In the modern dynamic world, we are steadily shifting to a fast track of economic and industrial development. The new global scenario poses unprecedented challenges for the technical education system thereby demanding the whole range of skills for all round development of the nation. One finds too many Institutions emerging around at the cost of quality.
  - 4) Today the most familiar picture in technical education is fresher candidates are not opting for teaching profession. It has been observed that either good talent has been sucked out of the academic stream or students of merit do not want to even consider teaching as a profession. It is due to availability of greater prospect in multinationals.
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#### V. CONCLUSION

The empowering of students through appropriate knowledge lies primarily with the faculty members in technical education. This could be through effective teaching & learning in any subject. However, there are certain critical aspects to make teaching & learning a model of best practices in this area. Technical institutions are facing the need to attract talented teaching faculty members in technical education. The educational institutions in India are facing acute shortage of qualified and competent faculties. Therefore, it is of utmost importance that institutions should redesign and pursue policies/mechanisms so as to compete well in market place to attract and retain the best faculty talent.

A major shortfall in this direction is the inability of our technical institutions to attract and retain qualified and trained faculty of high order. Due to wide variation in emoluments of industry and academics, private institutes face shortage of qualified and well-experienced faculty in almost all the disciplines. On the whole this paper has mentioned some drawbacks of the learning environment, both for teachers and students, and also suggests some measures for technical institutes to adopt for better practices of teaching & learning.

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