

Implementing Total Quality Management Philosophy: A Benchmark for Enhancing Quality in Higher Educational Institutions of India

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Abstract: With burgeoning growth of higher education sector in our country and global competition increasing relentlessly, the need for improving quality of education and employability of our graduates has acquired a new urgency. The concept of Total Quality Management (TQM) has already been adopted in many western countries, and not only in education but in many other fields. It is high time that we also adopt TQM philosophy in our higher education system to usher in the much needed transformation. No plan for improving quality in education can succeed unless the key player-the teachers-is enthusiastic and strongly motivated. They need support in the form of better remuneration, better training and conducive working conditions. All this requires huge monetary investment. With the governments unwilling and reluctant to infuse the necessary capital, and seeking public-private-partnership models, hurdles in the way of TQM implementation continue. In many western countries, big business houses have donated huge sums of money to educational sector. In India, too, the corporate sector, which is growing at a phenomenal rate, must shoulder some social responsibility. They cannot keep themselves aloof from the travails of the common people.

Keywords: Benchmarking, Fitness for use, Quality, Quality Council Committee, Team-work, Total Quality Management.

1. INTRODUCTION

The burgeoning demand for higher education in India is only matched by significant expansion of private higher educational institutes. These private institutes today are creating havoc with quality of education as their sole aim is to maximize profit.

Around 450,000 students go abroad for higher education to ensure their employability in Indian economy (Marya, 2012)¹⁰. The escalating number of students, the deteriorating quality of education, and the global competition, has all combined to force the society and the government to have a re-look at higher education. The government is mulling at various legislative measures to check the declining standards of education and enhance quality. India appears to be in for a huge makeover in educational sector.

The quality of education will determine the future of our country and of our people. The concept of Total Quality Management (TQM) is now widely accepted in western countries. There, though it started from business and manufacturing industry, it has already extended to almost every field, including education, hospitals, construction firms etc. In India, the concept of TQM, though theoretically accepted by all concerned in the field of education, its application and adoption is encountering various kinds of roadblocks. It is, however, argued that we must vigorously pursue TQM in higher educational institutes and make very effort for its success. Any procrastination or dithering in this regard would be disastrous.

To achieve success with TQM, the teachers and students must cooperate with each other and work in tandem for the best results. They also need inspiration and support from the highest echelon in the organization as well from the society. First let us see what TQM is all about.

2. TOTAL QUALITY MANAGEMENT (TQM)

TQM should be understood more as a philosophy or work ethics rather than physical steps to be operationalized. It should be adopted as a set of principles and beliefs. The basic features of TQM are “striving for continuous improvement” and “team work”. Its precondition is the participation and involvement of all the members of an organization in the task of improving the (services and) products. Teamwork is the secret of success. TQM is collaboration between the managers and non-managers, that is, the leader and the employees for continuous improvement of their product. Initially, TQM was customer focused, but in due course of time, it included all the stakeholders. As Oakland (1993)¹⁴ has succinctly summed it up “the distinctiveness of TQM lies in two major factors: a commitment to continuous improvement of quality of services or products, and involvement of all the members of the organization”. Both of these factors aim at customer satisfaction.

The Total Quality Management (TQM) philosophy was first mooted by Dr. Edwards Deming. His principle for quality control was first adopted in Japan in 1950's whose goods were preferred even in America. Deming (1986)⁶ suggested that customer is the most important person in the whole production process. Hence firms not only should know what the customer needs now and would need in future, but also his “complaints” should be attended to with top priority. In the context of education, both, students as well as future would-be employers are customers, whose satisfaction must be the prime concern of educators.

Another name to reckon with, whose work had tremendous impact on Japan and subsequently in USA, is that of Joseph M. Juran. He defined “quality” as “fitness for use”. In the context of education, these are our graduates and educated youth whose “fitness for use” implies their “employability”. A very important TQM guru is Philip B. Crosby (1979)³, who introduced the concept of “zero defect”. He also coined the phrase “quality is free” as he believed that most of the costs can be prevented by genuine efforts. Mistakes occur due to lack of knowledge or lack of attention. Costs of wasted labour, equipment, time, scrap, rework etc. can be prevented by better knowledge and by playing more attention, which will result in “quality is free”. In the context of education, cost of ‘wasted labour’ would imply poor quality of achievement of the students, low capacity and weak skills. These can be prevented if the teachers teach and motivate the students to acquire sound knowledge by being more attentive in the class and by being more concerned for their performance. Juran (1989)⁷ lays the blame for poor quality at the doors of management. He says that 85% of the problems that any organization faces are due to systems failure; that is, faulty process design, which is the prime duty of management. Only 15% of the problems are due to individuals.

According to Juran (1993)⁸, the “sporadic” problem is detected and acted upon by the process of quality control; the “chronic” problem requires a different process, i.e.; quality improvement: the source of chronic problems is an inadequate quality of planning process.

3. APPLYING TQM IN HIGHER EDUCATION

3.1 Educational institutions as Systems

Educational institutions should be considered as a system comprising of several interrelated and interdependent sub-systems. The identification of the sub-systems and their interrelatedness has to be recognized. The financial investments, the infrastructure, the instructional resources (including the teachers) are the “input” in the system. The graduates, with their qualities are the “products” and “output”. The instructional activities and other efforts for the quality of graduates are the “process”. The total setting is the “environment” which consists of the general attitude of all the stakeholders towards the working conditions of teachers and students. In the diagram, Figure 1 below, educational institutions as comprising of the subsystems, are schematically depicted.

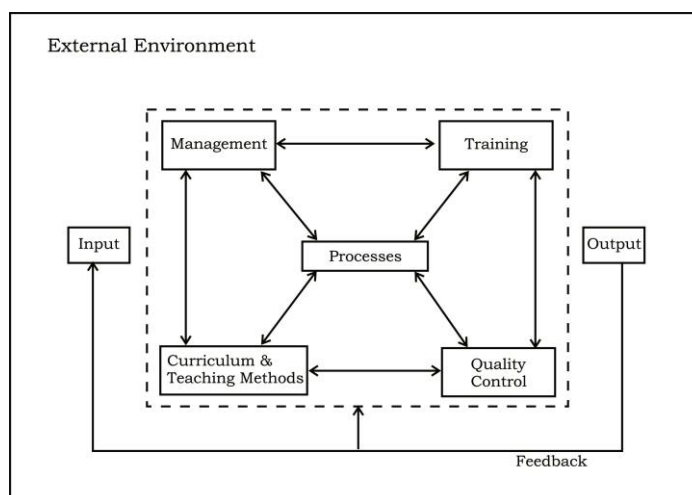


Figure 1: System and Subsystems in the Higher Education Sector

The three sub-systems are:

Input: Teachers, students, infrastructure, financial resources.

Processes: Management support & leadership, Teachers training, curriculum & teaching methods, Quality Council impact.

Output: Employable graduates, research publications etc.

Environment: The “environment” is of two kinds: External environment in which the institutions are working-the socio-cultural milieu including home environment of students and their parents; and the internal environment in which teaching-learning process is carried on inside the institutions.

When applying TQM to education, students are “customers” in the sense that it is they who pay for their education. The real customers are the prospective employers who would hire them in future; and in the latter sense, graduates are the “output”. In educational contexts, quality of the “product”, that is the quality and worth of students’ competence will be tested by the employer’s expectations and their demands. As Crossby says, “Quality is established in the market place and not in executive suites”. (Crossby 1984)⁴.

Thus, the whole educational system has to be revamped and reset: simply mass production of mediocre graduates will no longer help in the present global scenario. On closer scrutiny, it becomes obvious that for education, two very relevant and urgently needed concepts and strategies of TQM are: An integrated effort – all stakeholders coordinating and cooperating for a common cause; and secondly, the emphasis on the relentless and continuous improvement of quality, that is continuous building and skills of the students-drawing out the best in them.

Education must be considered as a team game. Educational institution is a “dynamic system”, composed of several interrelated and interdependent sub-systems. The management of the institution, the principal, the teachers, and even parents, employers, state, - everyone has a stake in the education, and hence are responsible for its success.

The first group that is internal partners are the prime educators as they are present “on the spot”. They must feel passionately about the issues and the stakes involved. The triumvirate of management, teachers and students, are the most important pillars of the whole scheme, are the most important pillars of the whole scheme. They have to strive as a team. The management has to inspire, as guide and as mentor and instil confidence, in the teachers. The teachers have to willingly and voluntarily devote themselves to their duty without fear or coercion from the management. They have also to make their students realize their duty and fill them with excitement and enthusiasm for their studies. The prime responsibility for inspiring, motivating and guiding the workers (teaching and non-teaching staff) rests squarely on the shoulders of management and principal or whosoever is at the helm of affairs. Traditionally, “management” remained aloof and away from the field of “action”. They generally “controlled” people and affairs through remote of the Principal. TQM, however, requires their active participation, especially as “leader” who would “inspire” and inculcate self-confidence, enthusiasm and excitement among the “workers”. The staff, teaching staff specially, should feel their self-esteem recognized and respected, which in turn would enable them to identify with the interests of the institution and strive voluntarily and of their own accord.

3.2 TQM Philosophy and Teachers' Role

Of all the stakeholders, teachers' role is the key role in TQM scheme. They bear the greatest responsibility not only for conveying information and imparting knowledge, but also for providing the "leadership" to the students and to motivate them for "honest" devotion to their studies. Students must really care about what is taught to them. This can be achieved only if they are convinced of the teachers' sincerity and commitment.

The best way to "influence" the students is by "setting good example". Teachers must first themselves believe in, and practice what they preach. "Personal" power, rather than "positional" power, often makes the difference between "effective" and "ineffective" teaching. For this, the teachers have to feel passionately about their work. As Deming suggests, we must feel as passionately about quality as we do about religion if we want TQM efforts to succeed (in Walton 1986)¹⁸. A committed teacher who exudes genuine enthusiasm is always the one who really cares, has knowledge, displays neatness and systematicness, and is concerned for the value of time and effort (his and his students'). For such teachers, the students are all-ears in the class and always ready to "stretch" their goals and continuously improve the results.

Communication with the students at an individual level plays a crucial role in motivating the students. Addressing the students by name and providing them feedback on their sincere efforts has a tremendous influence on their behaviour.

3.3 Student Assessment

In USA, students' perception of the quality of instruction is measured in terms of attributes that can possibly foster quality, such as the instructor "being well prepared", "being interested in teaching", "instructor's enthusiasm and energy", "being involved, caring and helpful" etc. These students' rating of their teachers is called TEVAL. TEVAL (Teacher Evaluation) instrument is fairly well accepted in USA. Students' giving high rank to a teacher or their comments such as "Very good teacher" or "He really made me want to do my best in his class", give a big boost to teacher's morale and encourage him to work more smartly.

3.4 Teaching Methods

The stakes involved in education are indeed very high, making it imperative for the educators and teachers to constantly evaluate their own teaching for continuous and rapid improvement. Though in TQM Philosophy, everybody from top (Manager or Principal) to bottom (the lab boy, the assistants in the office) is involved in the common cause of achieving excellence, but there is no doubt that teachers' is the key role in the organization. He has to constantly think of innovative methods for improving the learning by the students. It has been suggested by many TQM specialists in education, that instead of following the traditional process of "teaching" and then testing at the end of the session, they must periodically test the students to find their "weaknesses" and to revise their own teaching strategies. The periodical test may be called "checking". In this context also, the Deming Cycle is quite relevant:

The famous Deming Cycle (or Deming Wheel) of PDCA can be easily adapted for institutes of higher education.

The following figure 2 depicts the Deming Cycle:

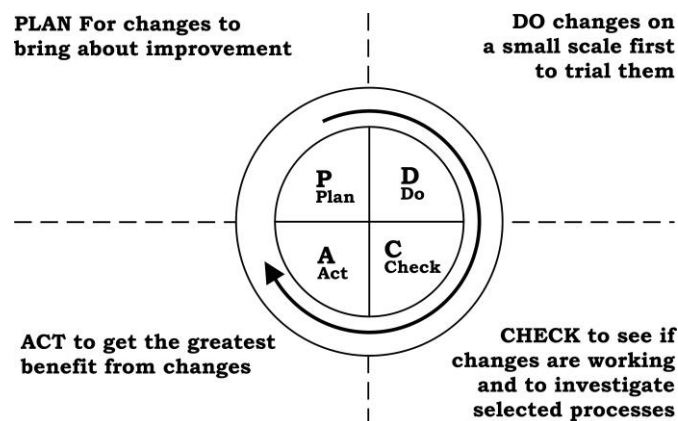


Figure 2: Deming's PDCA Cycle

(Source: HCI, [www.hci.com.au/hcsite2/tool kit/images/pdca.02.gif](http://www.hci.com.au/hcsite2/tool%20kit/images/pdca.02.gif))

The Deming Cycle can be suitably adapted in higher education as follows:

Plan-----→ Teach-----→ Periodic tests-----→ Revised teaching -----→ Final testing.

This can be represented diagrammatically as in Figure 3 with slight modification of Deming Cycle.

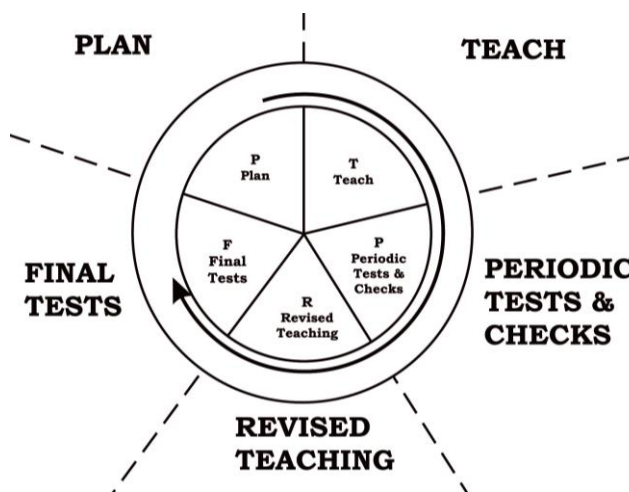


Figure 3: Modified Deming's PDCA Cycle in the Teaching Context

Thus certain parts of lessons would have to be re-taught so that the students really “master” the material. From the steps “check” and “test”, a teacher would be able to find ways of improving, or modifying his method and technique of teaching to make it more effective.

3.5 Other Elements of TQM Philosophy relevant for Education

i) Quality Council Committee (QCC)

Deming (1986)⁶ has opined that no human being should ever evaluate another human being. TQM emphasizes self-evaluation. It is believed that teachers would function more efficiently if given freedom and authority to make their own decisions. Empowerment generates excitement and a sense of responsibility. Every institution should have a small group of teachers who should meet regularly to take stock of work-related problems and to take decisions on remedial measures (Revised Teaching in Figure 3). This group may be called Quality Control Committee (QCC) or TQM Steering Committee (or by any other nomenclature). Sometimes all the staff members can also meet where one or more presenters can provide feedback and suggest future steps.

Professional freedom and empowerment generates valuable excitement and enthusiasm among the teachers. In every organization, educational institutes being no exception, there are some people who are “lazy” and “un-ambitious”; they “dislike work, lack initiative and creativity and must be controlled and directed” (Mc Gregor 1960)¹³. However, many people “do take responsibility, are motivated and can self-direct when proper rewards and motivation are provided. These latter types can make great difference in the QCC meetings. There is a need for continuous performance appraisal of all the subsystems in an organization. Hence the need for a Quality Coordinating Committee.

ii) Benchmarking

Educational institutes should adopt some framework as a benchmark. “Benchmarking” refers to a careful and close study of process or product of another organization who is supposed to be much better and successful in one’s area. By analyzing and studying the most successful institute one can learn a lot and revise one’s own strategies to improve. Some TQM experts also recommend that “weak” and “laggard” institutes should hire professional academicians or Consultants to guide and give them useful tips for quality improvement.

4. APPLYING TQM IN INDIAN HIGHER EDUCATION: PROSPECTS AND PROBLEMS

In the liberalized and ever-increasing competitive world of today, quality in higher education is not an option; rather it must be on the top of the agenda in India. TQM must be adopted by Indian Universities and Colleges for maximum benefits to the students.

The government has established accrediting bodies like National Council for Teacher Education (NCTE) and National Assessment and Accreditation Council (NAAC), who have mandated the institutions to provide evidence of quality principles in action. The management must lead, and provide inspiration and working environment to motivate the teachers. As Deming has said, “though quality is everybody’s job, but quality must be led by management “(Deming 1983)⁵. In fact, both Juran and Deming believe that most quality problems (80% to 85%) are responsibility of management. In India, the management in aided and self-financing institutes have mostly concerned themselves with “profit” margin and left the responsibility of “quality” to the Principal. These institutes indeed avoid quality measures as it leads to changes in their traditional set-up. For implementing TQM in higher education in India, leadership is a critical issue. The reason why the impact of TQM in higher education is small is the “organizational inertia” (Srivanci, 2004)¹⁶.

Teachers hold key position in any type of education. No plan to raise educational standards can succeed if teachers are neglected. With low salaries and poor working conditions, especially in private institutes, teachers’ motivation for hard and honest work is “fragile and weak”. Various research works have clearly established the “crucial importance of teachers’ motivation towards their role” (Carron and Châu 1996)². The same was noted by Voluntary Service Overseas (VSO): “the poor absolute value of the teachers’ salaries was a significant factor influencing their motivation (in the developing countries)” (VSO, 2002)¹⁷. The inadequate salaries force the teachers to look for additional income, which leaves little time to concentrate on their jobs. Low salaries and bad working conditions also become the most important cause of corruption and bad practices.

In India, the number of private institutes of higher education is quite significant. A recent report says that there are 110 private universities and nearly 129 deemed Universities in India. “Private higher education accounts today for about four-fifths of enrolment in professional education and one-third overall” (Yechury 2012)¹⁹. These institutes are run for profits. Though students pay high fees, neither the teachers get proper salaries nor is there adequate infrastructure. Teaching staff is generally under-qualified. Nobody worries about standard of education. Generally dubbed commercial shops, these private institutes just distribute degrees.

It is often said that teachers, if they take the essentials of TQM to heart, can not only make a positive impact on students’ performance, but also would improve their own prospects. But how can teachers work enthusiastically when they are “dispirited and less than committed, and classrooms are disorderly” (Babbar, 1995)¹. Even if some stray cases are found where individual teachers establish good classroom practices despite uncongenial and unsupportive environment, such individual efforts cannot last long. Sooner rather later, these situations put a lot of stress on these teachers and they give up out of sheer frustration.

Some studies have clearly identified barriers to applying TQM in higher education, such as managements’ poor leadership and limited control over some teachers, absence of financial support, and lack of motivation. In this connection, the results of case study of MATS¹² – a ‘not-for-profit’ private university – are revealing. MATS was established in 2003 and has several institutions all over India. They have positive achievements in a clear focus on need of Quality Management system (QMS), adequate financial support, adequate training, regular review meetings by senior personnel etc. However certain factors also impeded TQM implementation. Even QMS hindered the pace of progress as it made the process bureaucratic and costs on various heads could not be controlled. Student satisfaction was also reduced.

4.1 Teacher Education Institutes

Teacher Education Institutes undoubtedly play a vital role in improving the standards of education. For one thing, it is their main function to prepare competent and effective teachers. Teacher education is one of the areas in higher education which trains student-teacher in pedagogy. It is here that values such as sense of duty, honest work, and responsibility to the society, etc. must be inculcated in them. Only quality development of teacher education can ensure quality of teachers.

Good teaching is the result of education, training and experience. Hence prospective teachers must be given training of high quality. Not only teachers must get a good teacher education in the University but they must get in-service training later to remain in touch with new developments and innovative ideas in their areas of interest and thus improve their own methods. OECD (1994)¹⁵ emphasizes that Teacher Training institutes must make the trainees realize not only the importance of “knowledge, teaching skills and strategies” but also prepare them to be “self-critical” and develop “empathy and commitment” towards their wards.

Teachers' teacher in the training institutes should also be provided physical and moral support. A recent study found that many teachers, mostly in self-financing institutions, did not have job satisfaction (Manivannan & Premila, 2009)¹¹. Such a situation leads to many corrupt practices. The management must address this problem at the earliest. Corruption is an important issue, which in fact is related to professional ethics of teachers. Teachers must be made ware of what constitutes corrupt behaviour. Measures must be found to eliminate corruption. The issue should be included in teacher education- both in pre-service training and in-service training. Teacher organizations, teachers unions and other bodies such as Quality Councils should also find ways to fight corruption. Issues on corruption in education could be discussed in all these organizations and training programmes.

5. CONCLUSION

In India, though the application of TQM principles has only been sporadic and not with any significant success either, we must neither be disheartened nor should we abandon the endeavour. Indeed we should adopt the TQM philosophy with renewed vigour and zeal as we sorely need to improve quality of our higher education. Indeed, we must try to remove the obstacles in the way. In USA and many other western countries, all types of organizations including schools, hospitals, construction firms, National Aeronautical Space Agency (NASA), have adopted TQM principles in their organizations with great success.

TQM is an attempt at preventing waste of money and effort, and bringing in efficiency at all levels in an organization. It only demands sincere commitment from everybody in the institute. We desperately need professionally sound and excellent human resources. Hence, TQM should be made an integral part of higher education. Teachers alone are not responsible for quality education. Every stakeholder has to perform his duty, and support the teachers, morally and materially, to motivate them effectively. Necessary legislative support from the government is also required.

Applying TQM in Indian higher education will no doubt require substantial investment initially. In USA, the corporate sector provides huge monetary support to academic efforts. The contributions by Ford, IBM, Proctor & Gamble etc. have given a strong fillip to TQM application in education. Something similar should also happen in India. The financial implications are huge and all sections of the society must share the social obligation.

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