

Total Quality Management in Education: An Analysis

¹Iftikhaar Ahmad Wani , ²Hakim Khalid Mehraj

KEY TERMS: *Total Quality Management (TQM), Continuous Quality Improvement (CQI), Strategic Quality Management (SQM), Quality,*

I. INTRODUCTION

Quality means degree of excellence. It means peculiar and essential character that makes something unique and the best of its kind. It means a characteristic or a feature that something has and can be noticed as a part of it. It means how good and useful something is. It is a utilitarian and contributive feature of the product. Quality is the inspiration for transcendence. It is generally defined as conformance to requirements. It is also conformance to standard that is required. Many consider that quality need not be conformance to requirements but should be an assurance of being the best in the world of that type. In addition it should also keep constancy of purpose. There are a number of researchers with this concept who formulated frameworks for Continuous Quality Improvement (CQI), Strategic Quality Management (SQM) or now the latest Total Quality Management (TQM). Even though there might be some differences among these approaches, TQM is considered to be more general to capture essence of quality improvements. Total quality refers not only to product but also to the way the product is presented to the customer. It is continuous improvement plan, with an effort to bring out the best. It is a concept which has been viewed as a customer focused process, which needs for continuous improvement and meeting customers' perceptions. For good understanding of the concept, Witcher (1990) defines the term by breaking the phrase into three parts whereby "total" implies every person is involved (including customers and suppliers), "quality" implies customer requirements are met exactly and "management", implies senior executives are committed. TQM has been viewed as a customer focused process, which seeks for continuous improvement. It is a concept rather than a simple program or method which has many dimensions like planning, effective communication etc. by which every aspect can be improved and made effective.

TQM is a management philosophy that builds a customer-driven learning organization, dedicated to total customer satisfaction through continuous improvement in the effectiveness and efficiency of the organization and its processes. Total Quality Management provides what is required, as judged by the client. It is accomplished through everyone in the organization being committed to achieve results, a passion for quality and decisions based on performance data. TQM emphasize that it is important for all elements to fit together to turn raw materials into the products and deliverables that satisfy clients. Customer satisfaction is the result most addressed by TQM (describe the basic tenets of TQM which are as follows: "long-term perspective, customer focus, and top management commitment, system's thinking, training and tools in quality, increased employee participation, development of a measurement and reporting system, improved communication between management and labor, and continuous improvement". It can be seen that TQM describes two main notions: 1. Continuous improvement and 2. The tools and techniques/methods used. In general, TQM encompasses many management and business philosophies and its focus gets shifted, based on the scenario where TQM is applied. Whether it is in industry or higher education, TQM philosophy revolves around the customer.

It is an integrated organizational approach in delighting both external and internal customers by meeting their expectations on continuous bases through getting everyone involved with the organizational working on continuous improvement of all products, services and procedures along with proper problem solving methodology. It is an approach to improve the effectiveness and flexibility of the organization as a whole, through total employee involvement in holistic term in all aspects, process and activities. TQM helps us to recognize the facts i.e., we ourselves, who are responsible for quality work not someone else, who will check it after it is done. TQM is not traditional approach, it is innovative one. TQM is a management philosophy that seeks to prevent poor quality in products and services, rather than simply to detect and sort out defects. A basic concept of TQM is that quality is measurable commodity and in order to improve we need to know where we are? Have we some idea? Or where we are going to? TQM not only represents a specific method or set of methods, but it represents a theory for transformation of organization. The definition of the term "quality" is subject to change over the years. This change has been from meeting learners' specification to satisfying the learners to meeting and exceeding future expectations.

Total Quality Management used together is usually meant to recognize that real quality requires all elements of the institution to work together towards achieving the end. The concept of TQM is applicable to academics. Many educators believe that it provides guiding principles for needed educational reform. Students take classes, consume meals, sleep in residence halls, buy books and use many services for which they pay tuition other fees. The student certainly fits the definition of the word customer. Quality is an achievable measurable, profitable unit that can be achieved when one has the commitment and understanding and is prepared for the hard work. According to Stella and Grynam, (2004) quality enhancement cannot be achieved as an administrative process. It is a participative process involving various units of the institution, at all levels is likely to bring new strains together with unprecedented possibilities. Life in the coming decades in educational institutions at all levels is likely to bring new strains together with unprecedented possibilities. To enable the people to benefit in the new environment will require new designs of human resource development. Many of the strategies of quality improvement in education are derived from industrial setting. Challenges to the adoption and implementation of management concepts in educational institutions are several. One has to overcome the challenges to be able to take the best from industrial experiences and combine this in a holistic framework, with the methods more suited to the educational milieu.

Issues of TQM should be addressed in educational institutions, particularly as they relate to productivity and financing. Those adopting TQM in education have varying perspectives on the approach. Some see TQM as a management system with customer or student satisfaction as the crucial element. Others see TQM as a philosophy fostering change in an organization or the educational institutions. Academic institutions have used both the approaches in applying TQM in higher education settings. Quality of education takes into account external environment in which institutions operate: internal environment where teaching learning takes place and home environment of learners. The systems approach to education comprises of inputs, processes and outputs, all encompassed in an arbitrary boundary, and the environment. Inputs from its environment cross the boundary into the system: these are acted on within the transformation/production process and finally released from the system back into the environment as outputs. The direction of flow from the inputs, through transformation/production process to the output indicates the flow of energy, information etc. Inputs are human, physical and financial resources, (students, faculty, administrators and organizational culture) Process is a series of actions or operations concluding to an end. A process transforms measurable inputs into measurable outputs under a value adding operation. Educational process is a series of actions or operations leading to learning, training, education and scholarly activity. Transformation process for an educational institution consists of activities performed to disseminate knowledge, to conduct research and to provide community service. Process in the education system includes teaching, learning, research, administrative activities and knowledge transformation. Outputs are tangible outcomes, value addition (through examination results, employment, earnings and satisfaction), intangible outcomes (educated people, research findings and service to community). Then there is feedback i.e. the outputs of information about the system which, when fed back into the system as inputs, it ably modifies the system while the process is in progress, thus making the system more responsive to the needs of the components in the environment and thus making the system flexible. The output so released should satisfy the components in the environment in the form of customers/stakeholders: else the inputs would cease and further transformation /production ceases too.

Each TQM initiative is unique, there are some common features. On the large canvas, TQM provides a direction and framework for morality in education. It considers and reward the effort of those directly involved, both inside and outside the organization. Successful TQM models tend to embody concepts of integrity, honesty, commitment, participation and ownership. By applying the various principles of TQM, the present school education can be improved and goal of quality education in schools can be achieved. There are a number of studies conducted in education which show the positive response of TQM in education in achieving the quality education. For quality school education, total quality must be the highest priority in the school. Everything should be quality focused. In educational institutions, highest priority should be given to quality education so that qualified learners can be produced. Quality definition should be clear. Any definition of quality must include satisfying the agreed learners needs and expectations.

Long term satisfaction of learners needs should be an aim of total quality organization. A total quality organization will communicate openly clearly its principles, mission and policy for quality. Communication at all levels will flow smoothly for better performance. The highest levels of integrity honesty, trust and openness are essential ingredients of Total Quality Management. Health, safety and environmental issues will have a high priority within a total quality organization for teaching and non-teaching staff and students. Grievance reduction cells, which will work round the clock for the learners to redress their grievances. Quality circles are to be formed, which consists of small groups of people that meet on the regular basis to discuss problems to seek solutions and to cooperate with the management in the implementation of those solutions. Quality circles utilize

organized approaches to problem solving and operate on the principle that employee participation in decision making and problem solving improves the quality of work. In education quality deals with monitoring and identifying the areas that affect the levels of teaching. Total Quality Management involves continuous measureable improvements at all levels of school, ranging from school performance to employee performance, so that continuous process improvement, forever, will become an essential ingredient of success.

II. EARLIER EFFORTS OF IMPLIMENTATION OF TQM IN EDUCATION

TQM in education surfaced in 1988 at Mt. Edgcombe High School in Sitka, Alaska When David Langford the schools technology teacher/coordinator, applied total quality concepts in his classes. TQM has become increasingly popular in education, as evidenced by the plethora of books and journal articles since 1990. TQM has also spread into mainstream of educational organizations. The association for supervision and curriculum development, for example devoted its entire November, 1992 issue of its Journal, "Educational Leadership" to quality movement in education. In support of the TQM initiatives in education, Crawford and Shutler (1999) applied Crosby model to suggest a practical strategy for using TQM principles in education. Their strategy focused on the quality of teaching system used rather than on students, examination results. They argue that examinations are a diagnostic tool for assuring the quality of the teaching system. To satisfy the educational needs of students, continuous improvement efforts need to be directed to curriculum and delivery services. From such a perspective, various root causes of quality system failure in education have been identified. These include poor inputs, poor delivery services, lack of attention paid to performance standards and measurements, unmotivated staff and neglect of student's skill, Ali and Zairi (2005).

REASONS TO APPLY TQM IN EDUCATION

A lot of literature available points to a growing interest in applying TQM in education for a wide variety of reasons, Thakkar et al. (2006). Some of the reasons include pressures from industry for continuous upgrading of academic standards with changing technology; government schemes with allocation of funds, which encourage research and teaching in the field of quality; increasing competition between various private and government academic institutions and reduction in the pool of funds for research and teaching, implying that only reputable institutions will have a likely chance of giving access to various funds. According to Crosby (1984) unless strategy is focused on the quality of the teaching system and improvement, goal of TQM cannot be fulfilled. TQM in education cannot be accomplished without everyone in the organization from top to bottom being committed to achieve results a passion for quality and decisions based on performance data, Kaufman, (1992). According to Corrigam (1995), unless an organization builds a customer driven, learning organization dedicated to total customer satisfaction TQM cannot be successful. "A set of fundamental core values forming building blocks of proposed TQM framework is leadership and quality cultures continuous improvement and innovation in educational process; employee participation; and development; fast response and management of information customer-driven quality and partnership development; both internally externally", Juran and Gryna (1980).

III. FOR SUCCESSFUL IMPLIMENTATION IN EDUCATION

For the successful implementation of TQM in education quality circles are to be formed. A quality circle consists of small groups of people that meet on a regular basis to discuss problems to seek solutions and to cooperate with management in the implementation of those solutions. Quality circles utilize organized approaches to problem solving, operate on the principle that employee participation in decision making and problem solving improves the quality of work. In education quality deals with monitoring and identifying the areas that affect the levels of teachings. The past few decades were considered pioneering work on educational leadership, Bensimon and Neuman (1993), the leadership component deal with examining senior management personal of leadership and involvement in creating and sustaining a customer focus, clear goals, high expectations and a leadership system that would perform excellently. It also examines leadership system and policies internally that would impact staff and students and public responsibilities establishing partnerships with industry parents and general community externally. Improvements in leadership effectiveness could be achieved through a participative management style that includes inputs from a comprehensive 360 degree feedback system from these internal and external stakeholders. The strategic planning of this element would examine how the institution sets strategic directions and how it determines key plan requirements with a primary focus on students satisfaction. This element examines the key aspects of process management including learner focused education design, education delivery services and business operations. It examines how key processes are innovatively and continuously improved. The performance results of this element would examine student performance and improvement using key measures and indicators. This element examines how staff development and training is aligned along the objectives of the institution.

TQM would also examine the efforts to build and maintain a climate conducive to achieve performance excellence full participation and organizational growth. Some of the strategic thrusts of this element would be a manpower development such as staff recruitment training and career development, staff performance and recognition and quality work environment. The information management element should examine the management and effectiveness of the use of data information to support overall mission related to performance excellence. It should ensure reliability and accessibility of the necessary key information required for day to day operational management. It would also focus on making analysis of facts and information and respond to situations in a fast and effective manner. This element examines how the institute determines the needs and expectations of students and stake holders. It would include determining different performance measures and how the targets could be achieved. Some of the performance measures could be based on student satisfaction, surveys and evaluation of teaching and learning effectiveness. Effective leadership, good education management, efficient human resource management and versatile information management would definitely help in managing dynamic relationships with internal and external stakeholders. According to Lagros et al. (2004), TQM would include various dimensions of quality, including corporate collaboration information responsiveness, teaching and non teaching facilities, teaching and evaluation practices and the type of courses offered. Hence it is important to focus on TQM in education which would help how continuous improvement provides necessary foundation and help in improving and advancing field shoulder to shoulder with other fields or organizations. Tasie (2010) Total quality management (TQM) strives to improve organizational functioning by carefully studying the interface between an organization's mission, values, vision, policies and procedures, and the consumer that the organization serves. Customers' needs and desires are researched and analyzed, and product design, sales and service are modified to produce higher levels of customer satisfaction.

IV. IT IS PHILOSOPHY NOT METHOD

TQM is a philosophy which insists on the improvement, enhancement, betterment and change, of all the services provided to the students in education, the improvement, betterment, enhancement and change of every aspect of an organization or field. It needs to bring efficiency to every dimension whether it is teaching learning, curriculum or infrastructure. There is a need of amelioration, augmentation of every aspect, from management through infrastructure to classroom teaching. Weinstein (2009) also suggests that administrators should investigate the benefits of implementing a comprehensive total quality management program in their institutions. The core values, techniques and tools embodied in the Total Quality Management approach provide a proven approach to quality management and process improvement. The article describes the principles of Total Quality Management and the efforts of a team of teachers and stakeholders of a mid-sized music department at a public university to apply this method to the difficult problem of student recruiting. Kristensen (2010) also argues that a better balance must be found between internal and external quality assurance and quality improvement. She therefore, finds it most stimulating that the European Standards and Guidelines underline that external evaluations largely depend for their full effectiveness on there being an explicit internal quality assurance strategy, with specific objectives and on the use, within institutions, of mechanisms and methods aimed at achieving those objectives. Toremén, et al. (2009) also reveal the need for an effective change in management, educating staff and utilizing human resources to attain a system-wide quality improvement, to implement the principles of TQM. Originality/value: Quality improvement is a continual process that should be taken up from the operational level to senior management. Primary schools, as the basic subsystem of educational super-system, affect upper level schools with their outcomes. So TQM efforts at primary schools are fundamentally important to achieve a high quality education system. This paper sheds light on how to improve quality at this basic level. Manoharan, et al. (2010) advocates the setting up priorities for employee performance improvement. This requires a continuous improvement training program. In this article, interpretive structural modeling is used to analyze interrelationships among performance appraisal factors to design and plan a training program for employees. Toremén et al (2009) reveal the need for an effective change management, educating staff and utilizing human resources to attain a system-wide quality improvement, to implement the principles of TQM. Quality improvement is a continual process that should be taken up from the operational level to senior management. Primary schools, as the basic subsystem of educational super-system, affect upper level schools with their outcomes. So TQM efforts at primary schools are fundamentally important to achieve a high quality education system. Total Quality Management will require consistent performance of high standards in all areas of school, thus measurement, assessment and auditing are common TQM activities. The aim of TQM is to use resources better, to achieve greater success, financial or otherwise. The success of TQM results in improved employee involvement, improved communication and increased enrolment of learners improved quality and improved competitive advantage. The duty of top management should be to create awareness about TQM concepts and the individual role in achieving TQM in education. In TQM management commitment to quality is fundamental.

Commitment to quality means an understanding quality and the importance of learner and appreciation of employees' contribution to promote a holistic approach so that it will become every one's responsibility.

V. COMPONENTS OF TQM

Management should create teamwork among employees. Total involvement of employees will boost morale of the employees. It will generate a sense of authority and responsibility among employees. The employees contribution and aids must receive serious considerations and be placed into operation whenever recommendations are sound and relevant. Schmidt (1998) discusses how the four Total Quality Management (TQM) principles: customer satisfaction, continuous improvement, empowerment, and teamwork, can help teachers and students increase their efficiency and effectiveness in the classroom. Another educationist supports the participation of everyone in the system. Farooq et al. (2007) insists that the basic theme of TQM is participatory approach to address the question(s) of quality in business as well as in the field of education. He insisted on the need of every individual who is working in an organization should participate in the continuous improvement plan to make total quality possible.

Infrastructure is one of the most important indicators of TQM. If we lack sophisticated infrastructure, latest technology applied in the field of education, we cannot be successful in the implementation of TQM in education. The components of infrastructure which support quality of education are well equipped classrooms, health facility, water facility, guidance and counselling cell and ombudsman cell. The infrastructure in the form of well equipped libraries, laboratories, playgrounds, well ventilated, well furnished and well facilitated classrooms, reading rooms, internet facility, availability of scientific equipments, drinking water facility etc. should be in an institution to fulfil quality criteria. AzzilLessing (2009) also in his study emphasizes the critical roles of infrastructure in establishing and enforcing standards, supporting quality, and ensuring quality and accountability. Progress in developing the mechanisms and systems to support and ensure quality in several states is assessed, and the perils of expanding early childhood programs in the absence of such systems are examined. Also discussed are strategies for building capacity and strengthening the various functions of infrastructure in order to successfully support the expansion of universal pre-kindergarten and other early care and education initiatives. The article emphasizes the importance of being able to demonstrate that these initiatives truly benefit the children who participate in them.

Leadership, cooperation, accountability are those dimensions of TQM without which, it cannot have any effect on the organization. Therefore these aspects of TQM are to be implemented, improved and made efficient for the better functioning, performance and quality. Grumdhal (2010) identify the impact on achievement when schools implement a continuous improvement model using Total Quality Management (TQM) principles aligned to strategic planning and the culture of the school. TQM principles can successfully be implemented in all the schools with an emphasis on a systems approach to increase student learning. The principals have a critical role in holding and sharing the vision, implementing shared leadership, providing professional development and utilizing data to drive instructional decisions. Hertzler (1996) observed that implementation of Total Quality Management (TQM) in an organization implies a fundamental change in the way that organization functions. Undertaking any quality program calls for sweeping organizational changes. Factors necessary for successful TQM adoption include the development of a long-range leadership team working towards a shared vision, institutional commitment, and the need for those affected by the changes to play a role in its design. Authorities agree there is great potential for TQM in higher education if properly implemented and given sufficient time.

Quality culture, customer focus and good relationship in the organization are to be improved to execute the TQM to stand and survive in the times of competition. Riccardi (2009) indicated that the presidents perceived at their colleges relationships existed between product/service quality and customer focus, financial effectiveness and the other variables, operational efficiency and continuous improvement, public responsibility and the other variables, customer satisfaction and employee fulfilment, cooperation, customer focus, and public responsibility, and between employee satisfaction and the other variables. This study adds to the field of research by allowing CQI practitioners to focus on those TQM variables that support each other. Implications for future study include the evaluation of leadership during a CQI process, how accepting or resistant individuals are to change, and an exploration of how integral TQM may be within institutions, whether identified or labeled as such. Mehra and Munsung (2004) reported that to enhance the educational learning through some TQM principles, cooperative learning is a tool to enhance classroom learning and proposed to use specific TQM principles to enhance the learning process by adopting team work and empowerment. Ehlers (2009) also insists on the foundation for a comprehensive understanding and analysis of quality culture in organizations, focusing on higher education. While this understanding of quality as part of the organizational culture seems to gain more importance there is still a lack of fundamental research and conceptual

understanding of the phenomenon in itself. Quality development in higher education is often limited to bureaucratic documentation, and disregards the development of quality as an organization's holistic culture. However, there is a need to focus on promoting a quality culture which is enabling individual actors to continuously improve their educational practice.

VI. POSSIBILITY OF HINDRENCE IN IMPLIMENTATION IN EDUCATION

There may be some hindrances in the implementation of TQM in education because opinion, thinking, belief and attitude differ among individuals. Critical issues in implementing TQM in higher education include leadership, customer identification, cultural and organizational transformation. Unlike business organizations, chancellors and heads of higher educational institution do not enjoy ultimate authority in hiring and firing of personnel and allocating resources. Lack of necessary authority makes it difficult to deploy their values and goals through layers of higher education institutions. Deep rooted traditions dating back to centuries, a rigid departmental model, inter departmental competition for resources, lack of market focus are the cultural and organizational reasons that makes it difficult to tune in with TQM transformation. Ambiguity in customer identification also creates hurdles in TQM implementation. Among the main groups within the higher education institutions-there is not much agreement on which the customers are. While most administrators tend to perceive students as customers of faculty in classrooms, many faculty staff resent this metaphor as being too commercial. Without a well-defined customer and a customer focus, quality efforts may be easily diffused, Srivanci (2004). Pour and Yashodhara (2009) also concluded in their study that female secondary school teachers have better perception about TQM in education than male secondary school teachers. Svensson and Klefsio (2006) concluded that many people do not seem to have thought very much about what is considered to be quality in the environment in which they operate, and even less have a shared view within the organization. Too often organizations tend to start working with self-assessment without sufficiently thinking of 'why' and 'how' to accomplish the project. The work is performed without preparing all those who are to participate in the project and without discussing the core values that constitute the work. If the organization has not reached the necessary maturity level it is probably a waste of resources to start a comprehensive self-assessment project. Originality/value: As a synthesis form the analysis, a model for how an organization should start self-assessment is presented, as well as a number of guiding points. Owlia and Aspinwall (1997) conclude that customer orientation is a more problematic principle of TQM when applied to universities because of special nature of many academics whose motivation to work is often independent of market issues. The effectiveness of leadership is adversely affected by individualism among academic staff and due to absence of team working. Naware et al. (2006) found that Board of Governors and chairpersons in secondary schools are not providing the necessary leadership that would promote TQM practices necessary for schools' continuous improvement. However, some head teachers are providing the required leadership with a considerable number of school managements empowering their employees. The majority of schools are not committed to strategic quality planning, though they do promote human resource development initiatives. School management is expected to provide leadership that promotes TQM practices in order to achieve set objectives. Empowered employees participate in decision-making and are capable of increasing the quality of learning. Strategic quality planning is important for the provision of quality services while human resource development is necessary in schools to motivate and realize the maximum potential from employees.

VII. IMPORTANCE OF TQM IN THE EDUCATION SYSTEM OF INDIA

India being a democratic country ensures everybody of equal chance in getting education. There are a number of educational institutes but they provide theoretical education. No emphasis is given on practical education. The syllabus which is taught in schools is coming from several decades; no changes are done according to the needs of the learners, changing times, and according to the needs of the society. No education is provided in schools which may create professionalism, scientific temper and practical hands. Present system is producing learners with certificates, employability, learners with grades but no creativity, learners with degrees but no knowledge. So the learners have to face the problems when they have to utilize the knowledge. Industries also have to spend precious time, money and energy in undoing, modifying and redoing what is learned in educational institutions. So there is a need of Total Quality Management to be implemented in the schools which may solve these types of problems at all levels. Quality should be the essence of the education system so that other fields will empower, advance and get every type of assistance from the education system.

As it is evident, school education is the foundation or building block for the university education and the system of whole country. If we do not pay attention to quality education at school level, our university level education and mission of literacy will be failure. Without total quality management, we cannot transform our simple or traditional society into knowledge society. Without improvement and efficiency in education system it will be difficult for India to move ahead in shoulder to shoulder with other countries.

Therefore commitment to quality but total quality management will be helpful in the cultivation of practical education in the institutions of the country. Improvement in quality is never ending. Education quality leads to a prospective future. Hence insight on quality indices and virtual implementation need to be given top priority and due attention should be paid to the category in the wide range of educational strata e.g. school, university, educational management and the staff. There is a need of total quality management for quality in education at school level. Quality should be brought to the system in all aspects right from infrastructure to class room teaching, professional development and development of scientific temper. In order to compete in the global context, educational institutes particularly schools should promote quality education.

In India it is now widely accepted that higher has been crucial to India's emergence to the global knowledge economy. Yet it is believed that crises are plaguing the Indian education system generally and higher education specifically. The National Knowledge Commission (NKC) termed the quality lack as quiet crises. Industries routinely point towards huge skill shortage and are of the opinion that growth momentum and development may not be sustained unless the problem of skill shortage is addressed. Over last sixty-sixty years India has covered a long distance on the path of expanding the institutional capacity in primary secondary and higher education. In 1950 India had just 25 universities now above 704, colleges were 700, now we have above 36000 colleges, we have 7000 teacher training colleges, 1244 polytechnics, 1552 engineering colleges, 170 medical colleges. We produce 10% employable arts graduates, 25% employable engineering graduates, 30% employable medicine graduates. We were granted 5170 patents and our neighbor was granted 172113 patents in 2010. This the state of affairs of our education system. It becomes the perfect reason to implement TQM in our education system just Japan used this philosophy to rejuvenate and reconstruct the country's industrial system and produce the best products that create space for marketing throughout the world. The seminars, debates and symposiums should be organized at state and national level to bring awareness among teachers of all levels primary, secondary and tertiary so that education system can become dynamic and vibrant.

All the educational institutions should be provided sophisticated infrastructure, well qualified teaching staff, well qualified management to make TQM implementation success. Not only government aided institutions but privately managed educational institutions should be insisted to adopt the philosophy of TQM. There should be autonomous bodies for all the levels primary, secondary and university which can inspect the educational institutions after every one and two years, so that implementation of TQM can be ensured. The concept should be applied wholly and solely to change education system which would be according to changing times. TQM should be applied in other organizations for better performance.

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