

**Manufacturing Quality Techniques For Training and Education
and Their Possible Applications Within Libyan Institutions:
A Case Study**

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Abstract

Most of organizations (*both national and international*) have struggled with many difficulties during the past decades due to many problems, creating a negative impact on the productivity and utilization levels of many institutions around the globe, and within Libya in particular. This paper presents the current role, relevance, trends and challenges with respect of quality management applications in educational field within Libya as a case study. It outlines an overview of the current state of art to show how in the face of growing global competitiveness quality at the levels of knower, knowing and known elements of educational system using unified field of all the laws of nature, are deriving the benefits of the quality techniques. The paper also investigates the current implementation levels of Total Quality Management (TQM) as a philosophy for improving the quality levels within some academic and training institutions within Libya. A survey methodology has been applied in this research where some findings from interesting case studies are presented to show the benefits of successful TQM implementations originally developed for manufacturing industry. The paper has also pointed to areas where senior managers within the surveyed organizations should take immediate actions to achieve effective and successful TQM implementations, thereby improving their position in this competitive marketplace.

Keywords : Education, Implementation, Institutions, Techniques, TQM.

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Introduction

Total Quality Management simply described as a conformance to requirements. It is a management philosophy that focuses on the customers' needs by working toward a continuous improvement for the entire organization's activities, through the use of continuous statistical monitoring [1]. In education, it helps improve holistic quality in education and training approach by encompassing a multitude of activities to develop, improve and build abilities, relationships and values that enable institutions, groups and individuals to improve their performance and achieve their problem free and prevention oriented administration objectives. It assists in fulfilling the need for quality in knower, knowing and known elements of educational processes, systems and rules that influence collective and individual performance. TQM also helps to achieve the goal to help both seeker and provider of quality education and training to utilize their higher brain potential through enhanced mind body behavior coordination [1], [2].

TQM in education and training institutions can be considered as a management philosophy that helps produce the right professionals with high brain potentials at the shortest possible time. It aims at eliminating stress ridden environment prevailing in the existing system that adds cost without adding value. In a TQM system, underutilized brain potential using unified field of all the laws of nature is used, and rightly represents the whole processes of continuous improvement by quality in knower, knowing and known elements of educational system. The entire TQM system is a continuous process of change focused on developing people centered approach for coherence and harmony delivering the exact needed higher brain potential individuals at the exact needed time. It focuses on the need to enliven the full creative potential and inner happiness of every student and teacher, eliminate stress, and enliven total brain functioning.

An overview of literature on TQM area indicates that there is a wealth of knowledge, experience and understanding in production industries that could be equally applied in the educational area to achieve major improvements in knower, knowing and known quality and response. It is easily integrated into any public or private institutions without making extensive changes to the existing curriculum or schedule. When implemented fully within an educational establishment, not only do the individual teachers and students flourish; the entire atmosphere becomes harmonious, happy, safe, and conducive to learning. Many published work focuses on providing the knowledge, technology, and service to make education everywhere capable of creating exemplary citizens individuals

with the organizing power, wisdom, and self-sufficiency to achieve their desires while simultaneously promoting the well-being of society.

Implementation of TQM by the realization that the laws of nature outside are the same laws that function inside the human being helps meet the main objectives of complete education, which is the state of all-knowingness, the ability to spontaneously know anything, do anything right, and achieve anything at will. This ability to achieve anything at will in the state of self-referral consciousness, singularity, is the ability to spontaneously engage infinite Creative Intelligence, Cosmic Creative Intelligence, to bring fulfillment to all desires [3].

An Appraisal Of Educational Institutions and TQM

The goal of education, on an individual level, becomes creation of enlightened individuals. Once the possibility of achieving enlightenment is recognized, all other goals become gross sub-optimizations of the educational process. On the collective level, this paradigm opens the possibility for creation of an ideal society. As large numbers of individuals grow to the state of fulfillment and self-actualization in enlightenment, the collective dynamics of society will change. A few fully educated individuals are sufficient to give a new direction to the life of their community and by their very presence bring about an enlightened society, create and maintain world peace, and establish heaven on earth.

Educational institutions are products of their culture. As the knowledge, ways of knowing, and values change in the society, educational institutions evolve accordingly. Higher education in particular is impacted by several drivers like globalization, multiculturalism, technology, and an expanded understanding of human potential. The concept of human development is fundamental to education. It can be considered that education is most fundamentally about promoting full human development. Full human development is an important educational aim, and it is essential for societies that want to realize their economic potential [4], [5].

At the basis of this new perspective on education is an unmanifest absolute field of life at the source of all creation, which can be easily experienced TQM. The understanding that there is an unmanifest field of life at the source of both subjective and objective creation is a very old one. Advances in technology ranging from old traditional machines to sophisticated blood assay devices that nowadays make it possible to monitor fine changes in physiological functioning. Advances in

psychological measurement which make it possible to measure everything from levels of self development and creativity to anxiety and neurosis further enhance our ability to objectively measure human growth and higher states of human functioning. This advance in scientific capacity for assessing human functioning has brought out a full revival of the tradition of knowledge from many countries, showing its relevance for all areas of life. The first verifies that there are unique psycho-physiological characteristics associated with the experience of pure consciousness. Research has verified that subjective experience of transcendence does comprise a unique fourth state of consciousness, characterized by deep physiological rest and heightened mental alertness, different from waking, sleeping or dreaming consciousness. Physiological research of a different sort, but of fundamental significance, has established the profound correspondence between the expressions of pure consciousness and the structure of human physiology [4], [5].

A second sort of research has shown profound and wide-ranging benefits consistent with fundamental field of intelligence and orderliness. It has shown that the single TQM experience of pure consciousness leads to significant improvement in all areas of life-mind, body, and behavior. Specific findings on individuals practicing these techniques include sharply reduced medical expenditures in all major health categories, improved academic performance, growth of IQ, greater psychological balance, unprecedented growth on measures of self-development. This research demonstrating the holistic growth supports the view that pure consciousness is the most fundamental element of our being, underlying all aspects of our physical, emotional, and cognitive lives.

A third highly significant area of research based upon dozens of carefully controlled research studies shows that significant positive effects are created in society. It results in reductions in negative tendencies such as crime, violence, sickness, and accident rates, and increases in positive indicators such as cooperation and economic indices.

This remarkable finding is explained in terms of enlivenment of the underlying field of consciousness. When a critical number of individuals are practicing and enlivening this field, the effect is great enough to influence the individual physiology of individuals not participating. On an individual level, these benefits include more effective activity, happiness, and positivity, effects which translate on a societal level into less frustration, less violence, and greater cooperation. This extensive body of

research is opening a new vision of possibilities for human development and hence for education.

This implication succinctly, saying the individual is "cosmic", and universal in stature. [6], [7]. The state is the field of pure intelligence responsible for all orders in the universe, attunement to this field gives both great power and, at the same time, spontaneous ability to act in accord with cosmic purpose. It helps spontaneously command situations and circumstances; spontaneously control environment. This behavior is always spontaneously nourishing to oneself and everyone around. One develops the ability to spontaneously fulfill his interests without jeopardizing the interests of others. For these individuals, there is not only support from nature but also command over natural laws not yet fully understood-the ability to heal, to levitate, to have perfected intuition. Another huge transformation that occurs is the experience of permanent fulfillment where several traditions refer to the purity, joy, and bliss associated with the experience of pure consciousness.

Some Key Elements Of TQM in Educational Field

Recent findings, researches and surveys on TQM practicing within production and manufacturing environments in general, and in educational sector in particular demonstrate that successful implementation of TQM requires in-depth understanding of the following crucial key elements[1], [6], [8], [10].

Top Management Commitment and Stakeholder Involvement

Top management role as the executive power and driving force is vital for implementing successful TQM practices, and promoting organizational commitments [5], [7], [9]. TQM gives respect to all individuals and their growth at all levels. It considers them to be the most valuable asset at the working environment. It helps coherence, harmony, peace, secure, safe working environment, achieves in developing their professional and personal growth. It ensures empowerment to take part in the decision making, and meeting their commitments and shaping concrete actions to their ideas.

TQM requires that individuals to be treated fairly, and equally rewarded for the organization's performance, that will make all the individuals work more actively to look for more improvements. The management commitment and involvement are considered as the most important key

factor, showing that how dramatic improvement and benefits could be achieved by implementing an effective TQM system, showing that the individual responsibility is reported to increase up to 90%, better team working environment, and reaching high performance as well as providing permanent solutions for the problems they may face within their working area [10].

Self Sufficiency

For those established in the singularity of self-referral consciousness, Cosmic Creative Intelligence spontaneously performs. It helps in creating a culture and the natural ability to maintain this state of self-sufficiency, the ability to know anything, to do everything spontaneously right, and achieve anything through mere desiring. This is the supremely exalted system of education. In this state, an individual whose consciousness fully developed is an enlightened individual, and this full enlightenment, which develops the ability to achieve anything, should be the goal of education.

Knowledge is Structured in Consciousness

The process of TQM within education takes place in the field of consciousness, where the prerequisite for gaining complete education and complete knowledge for knowing everything, experiencing everything, and doing everything, is to bring the awareness to the level of pure intelligence, pure knowledge, self-referral intelligence, self-referral consciousness, and transcendental consciousness. In summary, TQM philosophy in educational field is vital to create full brain potential, helps develop better mind body behavior coordination, reduce and/or eliminate setup times through better planning, process redesign, and system redesign, teams of competent, and empowered employees who have more responsibility for their own work [1].

Preventive Problems and TQM

Preventive problems as an essential element of TQM involves that requires paying adequate attention to both routine and periodic actions to keep system running properly through a combination of activities and actions carried out to retain/restore an item to an acceptable condition [6]. It aims to meet demand at minimum costs by reducing frequency of all types of failures. It minimizes the probability of the failures in the time period after maintenance has been applied [7], [8]. Regular preventive problems could be used to enhance the status of the productivity to acceptable levels, and to avoid any sudden failures [9]. An advantage of preventive problems is that

it might be cheaper and it can be planned, while failures during operations might be dangerous and costly. Preventive problems also require less time compared with other types of controls of running costs. The performance of preventive problems could be evaluated by using simulation models, and it is found that the choice of strategy has a major impact on the cell performance as well as on the overall performance [10], [11].

Case Study

A recent survey to investigate the implementation of TQM practices within the education sector shows that how these practices are receiving attention of the decision-makers in the country. Almost all the respondents feel that TQM using unified field of all the laws of nature is vital to enhance overall performance of the education sector in the country. However, a few institutes implement it. The study included not only questionnaire surveys but also meetings and personal interviews to highlight the factors and factor interactions.

The respondents' results highlight the importance of each of consciousness based education for better mind body behavior coordination and TQM critical factors using a percentage rate. The ranking results for perceived consciousness based education system and TQM critical factors are ranked in descending order of importance according to the mean score they received. All the respondents ranked that the importance of implementing consciousness based education and TQM as very high at all the levels within their institutions.

Almost all the factors, which pointed with shortcomings such as; top management support and employees commitments, training and ongoing education programs, continuous improvement programs, and response to the employees suggestions are crucial and critical factors, having essential impact on implementing a successful TQM programs in education sector in Libya. Implementing TQM using consciousness based approach helps in promoting growing peace, happiness, creativity, intuition, empathy, strength, and wholeness. The associated fulfillment is extraordinarily rewarding and can be recognized that this is what would be expected in educational institutions.

Table I, shows perceived critical TQM factors in descending order

Critical TQM Factors	Importance
Management support on consciousness based education and TQM implementation	1
Involvement and participation of stakeholders in problem solving	2
Increasing TQM knowledge amongst internal & external stakeholders	3
Adapting blended learning programs	4
Adapting individual development & high communication networks	5
Adapting high and up-to-date techniques & technologies	6
Suitable incentive programs for all positive contributions	7
Considering total knowledge based system	8
Adapting performance measurement programs	9
Adapting Statistical Process Control system	10

When asked about suggestions and recommendation to enhance the performance of education sector within Libya, most respondents feel that way forward is need for more consciousness based system. They suggest the need for internal and external stakeholders to be connected. Nearly all say that there is a need to focus on the importance of interactions between educational institutions and the industry to improve this relationship using advanced multimedia channels for communication through blended learning systems ranging from face to face meetings, video-conferencing and global learning network.

Concluding Remarks

The paper has presented an overview of the state of art on TQM practices as an approach to develop consciousness based education system that helps

reduce all types of stress. It demonstrates that TQM could be implemented in various education and training areas, where services could be produced and delivered to the final customers through pursuit of a continuous improvement in order to reduce stress. TQM works for enlivening the full brain potential. It assists in fulfilling the need for quality in knower, knowing and known elements of educational processes, systems and rules that influence collective and individual performance. The paper pointed that the involvement of both internal and external stakeholder and top management commitments are ranked the most crucial key elements for consciousness based education and TQM implementations. In addition, this paper helps to achieve the goal to help both seeker and provider of quality education and training to utilize their higher brain potential through enhanced mind body behavior coordination.

The findings from this paper recognize that the most important goal of education is to promote individual development. Through realization of this goal, both individuals and society are served optimally. Most significantly, the goal of education is the state of fully developed heart and mind where one directly experiences the cosmic status of oneself and others. With this change the most basic component of education, that component capable of promoting dramatic enfoldment of full potential, and all disciplines are appreciated in the holistic light of their connections based in their collective origin in the field of pure consciousness.

Finally the paper concludes that the new educational approach is both more humane and more profound than contemporary education. Most significantly, it offers the prospect of achieving in the coming decades a new age characterized by lively individuality and universal love, an age free of social problems, an age that helps in promoting growing peace, happiness, creativity, intuition, empathy, strength, and wholeness.

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