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Applying the Total Quality Management (TQM) Model and the Holistic Model for Quality Management in Higher Education, Pros and Cons

[1]A. Al-Hayani, [2]A. Al-Mazrooa, [3]B. El-deek and [3]N. Ayuob
[1]Department of Quality and Development, College of Medicine, KAU, Jeddah, KSA
[2]College of Medicine, KAU, Jeddah, KSA
[3]Department of Medical Education, College of Medicine, University of King Abdul Aziz, Jeddah, Saudia Arabia

INTRODUCTION

Quality definitions: Quality is fitness for use However, there are other definitions widely discussed. Quality as conformance to specifications is a position that people in the manufacturing industry often promote. Why? Presumably because manufacturing can do nothing to change the design; hence this definition others promote wider views which includes the expectation that a product or service exceed the expectations of the customer. It means delivering products and services that meet: customer standards, customer needs, customer expectations and unanticipated future needs and aspirations (Juran and Gryna, 1988).

Dimensions of quality in higher education (Juran and Gryna, 1988)

Structure: The attributes of the settings in which care occurs. This includes material resources (university building, hospital lecture, tutorial room data show et...) human resources (number and qualifications of academic and hospital staff) and organizational structure (medical staff organization, methods of peer review and methods of reimbursement).

Process: What is actually done in giving and receiving care? It includes the teaching and learning activities by staffs and students.

Outcome: The effects of teaching and learning on the student, community and populations include improvements in behaviour, knowledge and satisfaction would also be included.

Rationale of quality in higher education: Dramatic changes in the education scene began taking place in the 1980s. There was a striking growth, worldwide of participation in higher education with the advent of information age with its huge and rapid growth in knowledge. The growth of places in the universities increased at rates more than 10% per annum. A growing participation of non-traditional students, e.g., those aged 21 and over, also increased at a phenomenal rate. With the galloping demand, the segregation that the governments had maintained the great binary divide between technical institutions and higher education, came under enormous strain. Many countries caved in to the pressures and granted the same status of a university to all these institutions a unified system of higher education.

These dramatic changes in the composition of universities prompted the governments to look more closely at the issues of control and at outcomes in terms of the employability graduates. With the arrival of the knowledge based economy, universities were expected to play apart in the shaping of the new mould of education for the community (De Alva, 1999).

Total Quality Management (TQM) is a comprehensive set of management ideas which emphasize or promote quality in organizations. Its goal is to make quality enhancement the governing priority of the organizations and one that is vital for their long-term survival and effectiveness. Quality in higher education can only be fundamentally changed by a deep rooted shift in culture at the academic level within the universities.

Development of managing quality: Organizations may seek to manage quality in one of several ways: Traditional Approach, problem-solving Approach, proactive approach and total quality approach.

Total quality approach: The total quality approach, also known as Total Quality Management (TQM), reflects a major reorganization that strives to achieve customer satisfaction through continuous improvement of the organization's products and/or services and processes it goes beyond the three approaches above; the term total reflects the fact that it is an overall organizational strategy initiated and committed to by top management and reflected at all organizational levels, including all employees, customers and suppliers.

Corresponding Author: Nasra. Ayuob, Department of Medical Education, Medical College, University of King Abdul Aziz, Jeddah, Saudia Arabia

Total Quality Management (TQM) in higher education: A true total quality process has three fundamental bases, these are: student focus, continuous improvement and staff and employees involvement. Total Quality Management (TQM) (also known as Total Quality Control (TQC)) is the application of quality principles to all facets of an organization Statistical Process Control (SPC) became the mainstay of quality efforts in America during this period. Another definition of quality-exceeding the customer specifications! Indeed, there are many definitions of quality and total quality. Next, some of the views of the so-called quality gurus will be briefly examined. Many educators believe that the Deming's concept of TQM is applicable to academics and that it provides guiding principles for needed educational reform.

The deming approach: Deming tends toward assessment of quality in human terms, yet espouses the utility of tools for understanding data. Deming created fourteen major points that are widely utilized. These include such items as: create constancy of purpose, institute training, drive out fear, break down barriers and so forth. The core of the Deming approach, however, lies in the use of simple data analysis tools that include control charts, flow charts, Pareto diagrams, Scatter plots, cause and effect diagrams, etc. Deming is also responsible for the Plan, Do, Check, Act cycle.

A core concept in implementing TQM is Deming's 14 points, a set of management practices to help companies increase their quality and productivity:

- Create constancy of purpose for improving products and services
- Adopt the new philosophy
- Cease dependence on inspection to achieve quality
- End the practice of awarding business on price alone; instead, minimize total cost by working with a single supplier
- Improve constantly and forever every process for planning, production and service
- Institute training on the job
- Adopt and institute leadership
- Drive out fear
- Break down barriers between staff areas
- Eliminate slogans, exhortations and targets for the workforce
- Eliminate numerical quotas for the workforce and numerical goals for management
- Remove barriers that rob people of pride of workmanship and eliminate the annual rating or merit system
- Institute a vigorous program of education and self-improvement for everyone

Total Quality Management (TQM) model: Total Quality Management (TQM) is syntheses of well-known management practices aimed at creating an organizational culture where every one will work contribute to overall quality of the products and services. Although Deming's original 14 points tend to be an important guide, many Western masters, like Crosby, Peters etc. provided a substantial slant in emphases, followed by a large group of Japanese masters like Ishikawa, Shingo and Taguchi etc. Hence, TQM remains a very rich field for potential management practice. There is a broad field for inspiration and guidance. More recently, many countries have instituted national quality awards e.g., Malcom, Baldridge Quality Award (US) which encapsulate these principles of TQM into measurement oriented frameworks of management practices, which are available for any organization to seek some guidance from. Generic Elements of TQM (Harvey, 1995).

Constant improvement: Quality improvement is a never-ending goal.

Management commitment: TQM requires the senior management to provide a leadership by improving the system to facilitate quality.

Customer driven definitions of quality: The outcomes of all processes should reflect customer requirements, needs and preferences.

Team work: The organization culture should be changed to one of mutual interdependence from individual competition.

Statistical techniques: Statistical techniques must be deployed to monitor processes and solve problems.

Application of TQM in higher education: As far as application of TQM to higher education is concerned, there are serious problems identified with its adoption:

In TQM the processes are supposed to be customer driven. In higher education the critical problem is identification of the customers or products to 'drive towards'. The customers can variously be students, employers, government etc. and in the same way the products can also be education, knowledge, research etc. This creates a considerable lack of focus for the groups involved with the processes.

With its measurement and process focus, TQM makes an implicit assumption that the processes are amenable to measurement. On the other hand many processes in education are too subtle to be measured. The more important the knowledge is the less likelihood there is of ever noticing it (Bowden and Marton, 1998).

In addition, the main tenet of effective communication required within a university for TQM implementation is rarely reached. There is rarely a shared vision and the academic managers in an attempt to retain power act as communication block. The participation in decision making at all levels rarely ever takes place. Those with power continue to retain it (Bramble, 1996).

On the other hand, there are other educators who hypothesize that the approach reported so far in the literature of attempting to implement TQM model as practiced in industry across all the operations of a university is flawed in view of its questionable fit with the core operation: teaching and learning. However, as ignoring the currently accumulated experience in implementing quality management models in industry, would be equally unwise; many recent publications suggested adopting a holistic model for quality management for higher education; where articulation between Total Quality Management (TQM) and Quality Management in Teaching and Learning (QMTL) models takes place. In such approach a clear distinction has to be made between two types of processes: services and teaching and learning. The pattern of interaction and governance required for both TQM and QMTL.

Points of similarity and difference between TQM and QMTL: The need for distinct approaches to the service and teaching areas of higher education proposed is based on their distinctiveness of emphasis. In the service areas student is clearly the customer and is the focus of all processes. In the teaching and research function students play the key role of a participant and the focus is on the attribute of their learning, as determined by:

- The global parameters of content and resources governing the curriculum design
- The subtle parameters of delivery and assessment governing the 'enhancement' of the learner

TQM addresses the service areas, focusing on the products of delivery by measuring, monitoring and continuously improving the processes. QMTL on the other hand, focuses on the empowerment of the course team across all the boundaries to facilitate a dialogue centered on learning. The techniques of TQM are well understood and documented in the industry practice, whereas those of QMTL are rooted in the educational research literature.

In spite of the structural difference in the scope of the two models, there is a substantial commonality of requirements in the implementation phase. First of all, their focus on students albeit to differing levels of subtlety. Secondly, at the operational level, collaboration is a key requirement in both the models although the fields of interaction may vary to a large extent. Both the models also require a visible commitment and support from the senior management to effectively continue to flourish. Thus by and large, the pattern of interaction and governance required for both the approaches is the same. Hence the development of a comprehensive model covering the education and service delivery aspects on the campus should work out to be reasonably mutually compatible.

In Higher Education, Holistic Model for Quality Management is the most appropriate for education reform where TQM addressing the service areas are to be meshed seamlessly with a model addressing the core areas of teaching and learning.

In developing a holistic model for quality management for higher education one has to make a clear distinction between two types of processes:

- The services to the student body from academic (e.g., enrolment, library) and general administrative functions (e.g., Cafeterias and recreation). To such service areas TQM is an appropriate model, similar to any other service environment e.g., banking or travel
- The teaching and Learning functions (relating to both education and research). In recent educational research literature a number of models for academic quality management have been proposed, a synthesis of which will richly address this area

Why the holistic model of quality in higher education is better than TQM: The holistic model approach would contrast with those reported so far in the literature of attempting to implement a total quality management model selectively across the operations of a university-which fundamentally defeats the purpose of totality. Lack of rationale for such poorly developed.

Disadvantages of TQM in higher education: Application of TQM in Higher Education is concerned, there are serious problems identified with its adoption:

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Based on the general reasons stated above, the enthusiasm of the academics to TQM has never been very high. It is therefore not surprising that TQM in higher education has been focused on academic support services given the relative ease with which customers can be identified e.g., in US universities as reported by Sims and Sims (1995).

A major criticism of management is that it attempts to grab onto any perceived solution any hot new buzzword of the decade and quickly incorporate it. TQM, unfortunately has been victimized in this same way.

Advantages of holistic model in higher education

Models emphasizing quality management in teaching and learning

Transformative model: There is a 'clear focus' on student experience. Transformative learning requires a transparent process, which is integrated, contributing to a rich and relevant Total Student Experience. Transparency means openness about the aims, processes and method of attainment of learning by the student. Integration means that such experiences are linked together into a cohesive whole. Learning is based on a dialogue between participant and providers. Dialogue involves the discussions between learners and teachers about the nature, scope and style of their learning. Dialogue also requires a dynamic exchange among the teachers about the teaching and learning process (Harvey and Knight, 1996).

An engagement model of program quality (Haworth and Conrad, 1997): Based upon an extensive interview of persons involved in Higher Education, the authors define high quality programs as those which contribute to the learning experiences for students that have positive effects on their growth and development. The theory maintains that in high quality programs the principal stakeholders academics, students and administrators invest in five separate clusters of program attributes, each of which contributes to enriching the learning experiences for students:

- Cluster 1: Diverse and engaged participants
- Cluster 2: Participatory cultures
- Cluster 3: Interactive teaching and learning
- Cluster 4: Connected program requirements
- Cluster 5: Adequate resources

In broad terms, the engagement theory advances a new perspective on program quality management that

- Emphasizes student learning as the primary purpose of higher education
- Highlights the pivotal role that people-primarily the academics, administrators and students play
- Provides a template for assessing quality

University of learning model: In the model, Bowden and Marton (1998) postulate that in all the commonly perceived functions of a university: teaching, research or community involvement, the core process is one of learning (at different levels). Hence they argue that quality in a university context has a lot to do with the quality of learning and the quality of learning has a lot to with qualities of different ways of seeing, when the learner widens the range possibilities of seeing the same thing. The learners world grows richer and (Has) more options for actions. They begin to experience simultaneously the range of variation of the aspects (or dimensions) of the phenomenon. They begin to discern the aspects by differentiating among them to focus on the 'one most relevant to the situation. Without variation there is no discernment.

A model for a responsive university: Tierney (1998) stated that this he model is based on the premise that The public..Will judge the university in terms of the quality of their relationships and the quality of the outcomes. Quality relationships (are) characterized by mutuality and equality. Therefore to survive and thrive universities will have to be responsive and be service oriented. The emphasis is on development of new internal relationships through communication and partnerships as well as 'new external relationships including social partnerships with communities.

CONCLUSION

Developing a generic model for Quality Management in Teaching and Learning (QMTL): While each model cited in the previous section has its own unique perspective on educational quality in a university, it is necessary to examine them more closely to see if they can be described by a generic model for quality management. At the outset, two focal points-issues that have received a common emphasis-seem to emerge from the models: student learning and a dynamic collaboration around it.

All the models have a common thrust on student learning experience, when one makes judgments about quality. The Transformative Model of (Harvey and Knight, 1996) requires quality policies to result in a clear focus on student experience.

The Engagement Model of Haworth and Conrad (1997) maintains that the clusters of program attributes should contribute to enriching the learning experiences for students. In the University of Learning model, Bowden and Matron (1998) argue that quality in university context relates strongly to quality of learning.

Tierney (1998) sees the responsiveness of a university to be coming from meeting the learning needs of students. All the above models also emphasize collaboration at the education delivery level. The Transformative Model, requires the learning experience to be based on a dialogue between the learners and teachers about the nature, scope and style of their learning and also among the teachers about the teaching and learning process. The Engagement Model foresees teaching and learning to be based on critical dialogue, mentoring and cooperative peer learning.

The University of Learning model highlights a synergistic involvement of academics in a course/ research team, developing a holistic view of student competencies and a collective consciousness of commonalities and complementarities. The Responsive University model emphasizes communication, which requires new relationships and partnerships both internally and externally. Therefore, given the common foci, it would be possible to develop a generic quality management model addressing a university's educational process.

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