Case study total quality management education essay



Increasingly, organizations are recognizing the strategic importance of quality and quality management. Many organizations have arrived at the conclusion that effective quality management can enhance their competitive abilities and provide strategic advantages in the marketplace. Total quality management (TQM) allows firms to obtain a high degree of differentiation and to reduce costs.

Many authors have dedicated their studies to total quality management and they have pointed out several approaches which can help organisations achieve TQM. Juran, Ishikawa, Crosby, Feigenbaum and Deming have all made crucial contributions tothe notion of total quality.

Juran (1986) pointed out the importance of both technical and managerial aspects, and

identified the three basic functions of the quality management process: planning,

organization and control, as the stages for quality improvement; he indicated that the

aim of the management is to reduce the cost of mistakes, reaching a point where the

total costs of quality are minimal (Juran and Gryna, 1993).

Ishikawa (1985) emphasized the importance of training, the usage of causeeffect diagrams for problem solving, and quality circles as a way to achieve continuous improvement.

Crosby (1979) defined 14 steps for quality improvement, including top and intermediate management commitment, quality measurement, evaluation of quality costs, corrective action, training, a zero-defect philosophy, objective setting and employee recognition.

Deming (1982, 1986) underlined the use of statistical techniques for quality control, and

proposed his 14 principles to improve quality in organizations, based on the following

ideas: leadership, an improvement philosophy, the right production from the beginning, training for managers and employees, internal communication aimed at the

elimination of obstacles for cooperation and the suppression of quantitative objectives.

Lastly, Feigenbaum (1991) described the notion of total quality, based mainly on leadership and an understanding of the aspects of quality improvement, a commitment to

incorporate quality in the firm's practices, and the participation of the entire workforce,

the objective being the reduction of total quality costs.

The research by all these authors shows both strengths and weaknesses, for none of

them offers the solutions to all the problems encountered by firms (Dale, 1999),

although some common issues can be observed, such as management leadership,

training, employees' participation, process management, planning and quality

measures for continuous improvement.

Deming's Philosophy

One of the strongest proponents of quality management was W. Deming,
The Deming management method is currently embraced by many firms in
the United States and around the world (Hodgson, 1987). In its current form,
the Deming management method contains a prescriptive set of 14 points
that serve as guidelines for appropriate organizational behavior and practice
regarding quality management.

Although Deming's intended audience was everyone within an organization, the overall message, embodied in the 14 points, has significantly greater implications for top-management behavior (Baillie, 1986). They are "obligations" expected of top, for it is clearly top management's responsibility to create and communicate a vision for quality management (Point 1), to authorize and institute ongoing training (Point 6), and to develop a plan of action for adopting the 14 points (Point 14). These 14 points are "principles of transformation" to be embraced by top management in its efforts to

continually change and enhance an organization's ability to survive (Deming, 1986:

23). Whereas Point 9 encourages the concept of cooperation, Point 7 calls for leadership to replace supervision.

As principles of transformation, the 14 points are based on a set of assumptions about "how work is accomplished and how the outcomes of work should be evaluated" (Gartner, 1993: 147). The 14 points represent Deming's beliefs regarding how to

manage this variability; therefore, they prescribe a number of practices in the name of quality management (Anderson, Dooley, & Misterek, 1992). The elements in this set of practices traverse beyond the boundary of a single discipline to include such traditionally different functional domains in management (Baillie, 1986; Gartner & Naughton, 1988) as human resources (Point 6), strategic management (Point 1), purchasing (Point 4),

and process control (Point 5). The intent of these practices is to facilitate management of the extended process (Gitlow, Gitlow, Oppenheim, & Oppenheim,

1989: 2-4), stretching the legal boundaries of the organization to include and affect suppliers upstream (Point 4) and customers downstream (Point 9).

The Deming theory in 14 points and its application to education

The quality of education has recently become an issue of common concern. Nowadays, there is a discussion going on between adherents of progressive and restorative educational thinking. In this perspective, the Deming theory may serve as a kind of moderator as it is user-oriented, putting the stress on the learning processes and on providing each student with a healthy development. Deming's theory of total quality leadership for adaptation to create continuous improvements in education is appealig for several reasons. Firstly, he provides a profound understanding of what leadership really deals with by placing people at the heart of the theory. The human being comes first in his leadership thinking, and he repeats over and over again that leaders must treat their people fairly and respectfully and give them such working conditions that they may use all their abilities, develop their competences, feel comfort and enjoy their jobs. He criticizes leaders who do not care for their people:

According to Deming's views, most of the practices of the prevailing system of management are wrong ways to manage people. Moreover, Deming urges leaders to open the way for cooperation. They are encouraged to provide opportunities for cooperation, stimulate people to cooperate, and remove system factors that may demotivate them from working together in teams. Further, he stresses that the customer should be of central concern to leaders. The main object of improvements is to satisfy the customer's needs and expectations because quality has only meaning in terms of the customer. Quality thus means providing the customer with a product or

service that fits in with his/her use. Deming hold that the effect of constant improvements is, not only to reduce waste, decrease cost and increase productivity, but to create conditions where the production worker may experience pride of workmanship. This happens when he feels satisfaction from quality performance.

Point 1: Create constancy of purpose towards improvement of product and services

To understand this point and the following ones, it should be emphasised that the main intention of Deming's philosophy was to encourage Western management to go for the long-term perspective instead of making minor amendments to achieve short-term profit. By means of creating 'constancy of purpose' he hoped to help man to live a better and fuller life (Neave, 1990, pp. 287-292). 'Constancy of purpose' can be achieved by developing an understanding of the need for constancy of purpose and an understanding of how continuous improvement may satisfy that need. Deming suggests that this can be attained in education by creating joy in study and in industry by experiencing joy in work. To achieve such joy, Deming emphasized that an educational institution should establish clear long-term aims, principles, values and norms to guide the educational practices of teachers and students.

Establishing and practising constancy of purpose in school may mean continuously improving educational processes in such a way that they challenge the students' needs for learning, socializing and experiencing fun while learning and studying at school. Helpful guide would also be found in the use of the Deming cycle of P(lanning) – D(oing) –

C Checking) - A(cting), which may prove helpful to teachers who want to work systematically to create continuous improvements in schools, colleges and universities.

Point 2: Adopt the new philosophy

New philosophy should be adopted because it builds up a system for continuous improvement in education. This may prove helpful to many educators. Since the Deming theory provides profound knowledge about the system, educators may find it valuable to be more aware of how it impacts on educational processes.

Another effect of Deming's theory may be that schools, colleges and universities decide to rethink their isolation from the society. Since all students, after years of studying, must be integrated into society, efforts should be made to cooperation regularly with society during education. Such merging processes may help to make the student more prepared for active participation in work and the democratic processes of society after graduation.

Point 3: Cease dependence on inspection to achieve quality; eliminate the need for inspection by building quality into the processes

To cease dependence on using inspectors to achieve quality is a current warning for many

educators. The use of special inspectors is costly and inefficient, and it does not add any value to the process or service. The main point is to deal

constructively with building quality into the processes of education without inspecting the end product. How can the educator tackle this problem?

Since quality should be evaluated in terms of student satisfaction with the education offered, teachers should be concerned about how well their educational services meet student problems, needs and expectations. In addition, teachers must master the content of their teaching and be competent in interacting with students and to motivate them. As part of the planning and execution of their teaching, the Deming cycle may be an appropriate tool to ensure that quality is built into the processes.

Point 4: Improve constantly and for ever the system of production and service, to improve quality and productivity Improvement is not new to education. All educators, it is assumed, work to improve their teaching. In order to constantly improve the system of education , it is suggested that improvement must be built into the whole system of education.

Moreover, Deming's quality thinking needs to be made an integral part of the system.

Similarly, this quality thinking can be integrated into the processes of writing textbooks. On this line of thought, it would also be beneficial if the processes of education could be improved. The definition of process could then be used. Here, improvement opportunities in each of the input variables of the process should be looked for and work systematically with them.

Point 5: Remove barriers that rob people of pride of workmanship

Deming contends that people who are robbed of experiencing such pride in their own work are left with a job that yields them only pay, which in the long run does not offer much joy. If this point of view is adopted in education, it means that all those working in education should be entitled to ample opportunities to experience pride in workmanship. The good feeling of working and successfully completing a job or task serves as fuel, stimulation and inspiration for further contribution. Pride of workmanship is thus a

personal feeling of satisfaction that stems from the successful completion of an educational task on the solution of a problem. It is important that teachers learn to accept such positive feelings and share them with others. By setting an example, they can help their students to experience this form of satisfaction with work, and thus share positive feelings with their classmates.

System factors, such as performance appraisals, may be inhibitors to pride of workmanship

The operation of management by objectives has similar effects because it focuses

exclusively upon whether the objective is reached or not. It is not concerned about the people involved and the intermediate processes (Stenberg, 1980).

Point 6: Drive out fear

This point may be of crucial importance because there may be much fear among professional people in education. Teachers may fear being evaluated by colleagues and students and by external experts who perform regular or irregular appraisals of them and their educational work. They may also fear the unknown and failure in the performance of their jobs. It is a good idea to attempt to drive out fear, since this negative emotion may interfere with the execution of teaching, coaching and counselling.

It is suggested that improvement groups may be used to: identify fearprovoking factors, either in the system or elsewhere; analyze potential ways of removing or reducing such factors; test them out and put the solution into operation.

Point 7: Break down barriers between departments to enhance the use of teams across internal borders

Most educational institutions of some size are divided into departments, sections, subject groups, and the like, to create contact and cooperation between colleagues within the same field. This type of organizational measure functions to enhance opportunities to provide students with good teaching and satisfy some of their needs and expectations. Organizational group may develop, however, a kind of self-sufficiency that prevents cooperation between members of different sections or departments.

Following Deming's philosophy, in order to create a team spirit in education and to stimulate cooperation between departments, one approach may be to teach them to understand:

(1) that the strength of the educational institution depends on how well all members

cooperate to solve the problems, regardless of what sections they belong to;

(2) that the educational institution should use cross-functional teams for all tasks which

depend on such cooperation;

(3) that the educational institution should strive to build an organizational culture

blessed with compatriot feelings, team spirit and cooperation.

However, it is still up to the members of the organization themselves to start putting these ideas into practice.

Point 8: Eliminate slogans, exhortations and targets

Campaigns, slogans, and the like aimed at influencing students to change some kind of

behaviour do not tend to yield lasting results. This may be owing to the fact that the

weaknesses which the campaigns aim to improve are attributable to the system and not to the students. According to Deming's estimate, more than 90% of all faults, fiaws, etc. depend on the system. In his terms it is only top leadership that can change the system.

What consequences does this have for educators? One suggestion is that they should

analyze the situation to reveal what may cause failures to occur.

Instead of providing general goals in terms of slogans, education could teach students to

set individual goals with a time limit, and train them to evaluate their goals in due time and

set new ones. According to experience, an individual feels more responsible for, and is more committed to, personal goals than goals set by others. The processes of goal-setting tend to create a personal 'ownership' of the goals that the individual formulates himself or herself. Thus, the student may work harder to reach the goals.

Point 9: Eliminate work standards and management by objectives, by numbers, numerical goals; substitute leadership

A work standard may be expressed as a concrete measure of a day's work, a number of

produced items during a fixed period of time or a quota. Deming (1986, pp. 70-75) reports that the work standard for a bank teller was stated in terms of the exact number of customers he should handle per hour. In Deming's view, a standard is a 'fortress against improvement'. The only thing that counts is to reach the standard, as no claim is made about the quality of the work performed.

To work with such standards, which are an inherent part of management by objectives,

can confuse educators' conceptions of their jobs. Should they be concerned with making

students reach goals fixed by others, or should they provide students with challenging work, and meet their needs and wants as human beings, and coach them to acquire better

understanding of procedures and what leads to what. Focusing on outcome only and not on processes may limit the teachers' opportunities to help students to improve their learning capacities and communication skills, and develop their social and emotional competencies.

Point 10: Institute leadership

Deming considers leadership as being primarily about leading people. In education, as in other spheres of life. the leader's main task is to help people to do a better job and be a leader whom every student can count on.

Leadership consists of acts aimed at influencing people. It is not linked to specific positions but can be practised by all members of an organization.

The teacher should consider her tasks more as those of a leader than of an instructor (Stensaasen, 1989a, p. 45f.).

This implies that teachers should make plans and organize stimulating and challenging working situations for students. As part of their leadership responsibilities, teachers can include counselling and coaching services, and offer them according to their perception of students' needs and requests.

Teachers should also recognize the leadership acts of the students, be alert to their contributions, and not ignore but include them in their practice.

The better their leadership acts contain and mediate the message of total quality management (TQM), the better they contribute to their students' understanding and potential practice of it.

Point 11: Institute training on the job

Instituting training on the job is as much needed in education as in other areas of work.

Due to today's rapidly changing world, education should be prepared to face chaotic

situations. Regular, frequent retraining of educators must be a central part of such preparation. The main object of organized training on the job should be to enhance teachers' proficiency in providing learning situations that stimulate the intellectual, social and emotional development of students.

A challenging task in this respect seems to be to make it a custom that the members of the organization learn to modify their behaviour in the light of newly acquired experience and knowledge.

Point 12: Institute a vigorous programme of education and self-improvement

What an organization needs is not just good people, it needs people who are

improving with education (Deming, 1986, p. 86). This statement also applies to people in the field of education. They experience great joys and

challenges in their jobs, but they also feel that they are wearing themselves out by interacting almost continuously with students to clarify problems, answer questions and provide comfort. These facts stress the needs of educators for services from a vigorous programme of education and self-improvement. Such a programme should be considered as an investment in teachers and not registered as a cost of education. A programme of education and

self-improvement for teachers would undoubtedly contribute to raising the standards of

students' as well.

Point 13: End the practice of awarding business on the basis of price alone

The main object here is that price should be neither the only nor the decisive factor under

consideration in decisions on what educational equipment, books, technical hardware, etc. to buy. It is necessary to request quality and to recognize its importance for educational

practice. A way of achieving this may be to establish long-term contacts with suppliers and producers to build up their quality consciousness and knowledge of how to

achieve and improve the quality of educational products. This procedure may raise the

quality of suppliers' deliveries in the educational field as it has done in industry.

Point 14: Put everybody in the organization to work to accomplish the transformation. The transformation is everybody's job

The principal of the educational institution has a special responsibility for starting and

maintaining the transformation process. To make the transformation a success, the leader

and his/her leader group must be committed to the task and must be prepared to tackle the

various setbacks, hardships and resistance that will probably occur during the implementation process.

Every member of the organization must participate in the transformation. To ensure that the transformation process permeates the whole organization, everybody must feel that his/her contribution is important. Everybody should have a feeling of ownership of the task of transforming the organization, and recognize that the ways and means they apply during the transformation are those they should use in the future. The term 'everybody' includes the students too. They should participate in changing the processes from the very start of implementation.