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Total Quality Management in Education

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ABSTRACT


Total Quality Management (TQM) is a management philosophy that focuses on continuously improving the quality of products, services, and processes within an organization. It originated in the manufacturing sector but has since been adopted in various industries, including education. In recent years, there has been a growing recognition of the importance of quality in education. The education sector has started to embrace the principles of TQM to enhance the overall educational experience for students, improve teaching methodologies, and streamline administrative processes. In this article, the total quality management process in education is examined and the results of adaptation to education are tried to be examined.


1. INTRODUCTION

Total Quality Management (TQM), a management philosophy developed for industrial purposes, is now gaining increasing attention in the field of education (Crawford and Shutler, 1999). Total quality management (TQM) is a concept that forms the basis of business and management understandings today. TQM is an approach that includes principles such as continuous improvement, customer focus, participatory management, process orientation and data analysis. Its purpose is to improve quality at all levels of the organization and ensure customer satisfaction. Although this concept initially originated in the manufacturing sector, over time it has spread to other sectors as well.

The education sector is one of the sectors affected by this transformation. Educational institutions aim to increase student success and satisfaction by adopting TQM principles. Total quality management in education focuses on evaluating, improving and innovating all processes of educational institutions.

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Elements such as teaching methods, curriculum design, classroom management, student evaluation processes are rethought and improved under the influence of TQM.

By prioritizing student and parent satisfaction, the quality of education is tried to be increased. The implementation of TQM in the education sector aims to enable students to learn more effectively, to ensure that educational institutions are competitive and respond to the needs of society. Total quality management in education increases collaboration within the organization, encourages continuous learning, and enables the organization to continuously evaluate itself.

However, there may also be challenges to implementing total quality management in education. The complexity of educational institutions, their multi-stakeholder structure and the nature of their educational processes can make the implementation of TQM difficult. In addition, the processes for measuring and evaluating success in education can be complex. As a result, the concept of total quality management has an important place in the education sector as well as in the business world today. Educational institutions continuously try to improve themselves by adopting TQM principles to increase the success and satisfaction of students. In this article, the total quality management process in education is examined and the results of adaptation to education are tried to be examined.

Quality

Although the concept of quality evolves over time and contains different meanings, it is a whole whose general structure does not deteriorate. So, how is the concept of quality understood in general and in what way is it today? It is considered as the judgment of the needy users against a product or service. It is a set of beliefs that meet the expectations of the person and fully satisfy their needs or are satisfied. As in every era, the whole organization, the service or the set of needs in the current period of time has encountered a competitive situation and this situation expands the way to have an idea about the concept of quality. Farida, Setiawan (2022) emphasized the importance of performance and innovation as intermediary variables in the relationship between business strategies and competitive advantage.

In the globalized world, it is known that all structures that include organizations such as institutions and organizations are in the process of competition and this competition is increasing day by day and progressing in different ways. These discovery processes diversify by becoming more detailed in the distributions in the institutions' own fields of work. Within all quality objectives, whether commercial, civil or official, the common understanding is to go further and to provide quality that has not been discovered, which raises satisfaction to higher levels. The word quality means competence as a common for all institutions acting for these different purposes.

Competence is important in terms of their level. The ratio in the level of satisfaction between a quality service and the target audience increases the level of competence in quality and ensures the ideal

quality. Because the targets that can take the quality forward are determined and implemented thanks to the positive progress in competency skills as well as increasing with competition. When the concept of quality is considered, it is necessary to first know that: when the term quality is mentioned, "goods and service quality" or "product quality" are often the first to come to mind. However, there are many different elements that decipher product quality and all these elements are unique and constitute only one part of the quality concept.

Quality is not absolutely perfect. Quality is always known as the structure that encompasses the set of concepts that are ideal. The concept of ideal may vary from place to place according to time, people and process, and these changes can be updated. There is no meaning without margin for error, but this margin of error must be at an acceptable level. It contains solutions and ways before the problem arises. It is a directory of structures that include flexibility between efficiency and professionalism.

We can list the expectations in the process when quality is ensured as follows:

- 1- Sustainability,
- 2- Continuous development and improvement while meeting the needs in line with the needs,
- 3- Degree of conformity,
- 4- Hosting corporate characteristics,
- 5- Creating a mandatory structure.

The concept of quality, which is described as a whole of processes, should be considered as a whole but piecemeal. According to Hoque, Hossain, Zaman (2017), the TQM process in educational institutions is generally based on (a) Mission and Passion, (b) Manager as a role model, (c) Environmental factors, (d) Responsibility, (e) Human relations, and (f) feedback. TQM will only help organizations achieve excellence that can now guarantee their survival in a highly competitive world.

In this context, Quality is a phenomenon that can be ensured with the entire organizational structure in line with the objectives with all its processes. In other words, when departments are created in a workplace, all departments should act simultaneously in all quality-oriented studies.

Total Quality Management

The need to take part in the information network due to the changing technologies and developments of the world has increased the competition situations based on human power in the products and services of the ever-shrinking world market and the quality revolution has started with this rise. The need for change, which is mostly economically based, has led the structural understandings of the administrations to change in order to improve quality.

The quality that institutions are trying to achieve has been transformed into an improvement model at regular intervals, and the active participation of employees has been ensured for quality purposes. The concept of total quality management, which emerged as the satisfaction of the general, is defined as "the continuous improvement of all activities in an organization and the achievement of profitability by satisfying employees, customers and society with the active participation of all work in the organization (West et al., 2000: 113; Altınok, 2001). In this context, in the concept of total quality management, although the satisfaction of the target audience stands out as dominant, it is also known that it is a multifaceted and multi-person situation.

While this type of definition ensures that the obligations are fulfilled in a complete manner, it also includes the efficiency of the target works performed. It also requires an integrated process required to provide joint action with large masses in order to achieve this quality. In other words, this process is perceived as a total process that includes not only the managers but also the managed. Incorporating innovation and change requires the ability to act together at its most basic. The concept of total quality management can be understood when each person or vehicle in the system creates a wheel of action together for this quality change. The duties of those in managerial positions are undeniably high. The most important element here is the ability to take initiative. While every detail is needed in the system, managers should be able to undertake these responsibilities.

Total Quality Management in Education

Bringing quality into development can be realized by continuously improving all activities and actions that are included in educational processes. Each time, achieving even more quality than the previous one can be achieved by combining and improving the concepts of internal and external quality. The main goal of the development of internal quality is to make the work simpler and more fluid in the process. The situation of protecting problems or errors at the end of the process will also reduce expenses in the long run. In external quality, the aim of improvement is to increase the satisfaction of the target audience, which is defined as external customers. According to Yıldız and Ardiç (1999:77), innovations should be reflected in the curricula immediately and new learning methods should be applied.

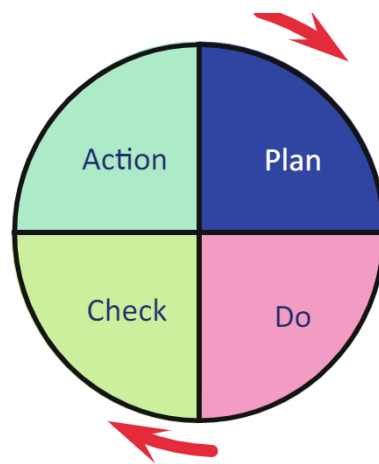


Figure 1. PDCA Cycle Activities

Source: Hoque, Hossain, Zaman (2017).

The PDCA Cycle will be repeated over and over again for "Continuous Improvement" The focus of TQM implementation in educational institutions should include at least the following:(1) Knowledge: 100% understanding of topics (2) Wisdom: the ability to apply knowledge and experience to make the right decisions, the right choices and the right reasoning (3) Eloque: Clear, fluent and flawless presentation of ideas and living a participatory life (4) Spiritual Perception: Ability to distinguish right from wrong (Hoque, Hossain, Zaman, 2017).

Synchronized work is the most basic requirement of total quality. The total quality in the management approach emerges not only with the effect of the managers but also with the effect of the group working in a team. This is also the case with the total quality management adapted to the school.

Education, which is served as educating individuals, producing human products, and providing positive behavioral changes in people, is incomparably more difficult than what those in the production of all other goods and services are trying to do. However, it is not possible for educational organizations to remain unaffected by the innovative movements and practices noticed in other institutions. The structures involved in educational work will be affected even without realizing it. A more systematic and planned manner to this effect will bring about rapid increases in total quality.

The philosophy called total quality and its implementation makes educators more supportive than judgmental, more guiding and guiding than transferring, more than employees isolated within classroom walls; to help them see as working with families, students, administrators, teachers, workplaces, and the whole community (Bonstingl, 1992: 5; Özdemir, 1995).

In this context, while looking at the total quality management understanding with a philosophical eye, it is necessary to shape its adaptation to education through these filters. In order to demonstrate the total quality in education, it is necessary to develop the ability to act together, which is the most important element of the total quality, instead of advancing by judging the educators. When teachers, students, parents, administrators, employees and all environmental elements develop the ability to act simultaneously, the wheels of change in total quality management in education will start to work. When these wheels are activated, quality educational applications that can be constantly renewed, suitable for the conditions of the age and meet the needs will be provided.

Table 1. Some Field-Based Studies

1995	(Dahlgaard, JJ) (Kristensen, K) (Kanji, GK)	Total quality management and education	This article covers a general plan-do check-take action cycle on quality called the PDCA leadership model.
2009	(Vlasic, Suzana) (Vale, Smiljana) (Puhar, Danijela Krizman)	Quality Management in Education Interdisciplinary Management Research V Book Series	This article describes the current state of the Croatian education system and the importance of the components of quality.
2014	(Mehta, Namish) (Verma, Prakash) (Seth, Nitin)	Total quality management implementation in engineering education in India: an interpretive structural modelling approach	This article describes the development of a contextual relationship between the various defined principles of TQM and the determination of their driving and dependency power through a single systemic framework.
2016	(Sahney, Sangeeta)	Use of multiple methodologies for developing a customer-oriented model of total quality management in higher education	This paper describes an attempt to develop an integrated customer-centric model. The purpose of this article is to identify prioritization, whether internal or external clients, through the use of multiple methodologies that lead to a generalization of outcomes for improving the service design of an educational system through the inclusion of VOC. In the study, multiple methodologies with various techniques were used for analysis through the SERVQUAL application. Findings from various techniques have been combined and proposed as an integrated model of TQM at a higher level. It is thought that this article can be useful for government bodies, funding agencies, policy makers and managers in developing a system that can ensure the satisfaction of both internal and

			external customers of the education system.
2017	(Psomas, Evangelos) (Antony, Jiju)	Total quality management elements and results in higher education institutions The Greek case	The purpose of this article is to determine the most commonly adopted TQM elements of higher education institutions in Greece and the results obtained. This study contributes to the literature by empirically identifying the elements of TQM that are mostly adopted, as well as the relevant results obtained by Greek HEIs during the period of economic downturn.
2020	(Quyen Le Hoang Thuy To Nguyen) (Du Van Nguyen) (Ngoc Nguyen Mong Chu) (Van Hong Tran)	Application of Total Quality Management in Developing Quality Assessment Model: The Case of Vietnamese Higher Education.	This study was carried out using both qualitative and quantitative methodologies to develop quality criteria and a ranking model. In order to improve the quality framework implemented in Vietnamese universities within the scope of total quality management (TQM), two rounds of in-depth interviews were conducted with fifteen field experts, rectors, employers and recruitment specialists, starting with the input of high-level secondary education. Fuzzy logic was applied to rank the eight criteria in the quality assessment model as priority order cost, teaching and administrative staff, leadership, curriculum, student-related factors, internationalization, admission, and campus. The results are critical to determine the actions necessary to improve the quality of education and to conduct further research on the optimal quality model.
2020	Hang, Y., Zhong, Y., Huili, S.	Research on the Quality Assurance System of College High-level Sports Teams in Guangdong Province	The focus of this work is to address the problem of quality in school management.
2020	(Oluwafemi, Ifetayo) (Laseinde, Timothy)	Useful Total Quality Management Critical Success Fundamentals in Higher Education Institution	In this article, 13 principles of TQM application were identified using Delphi technique and applied to engineering applications.
2022	(Khan, Muhammad Adnan) (Borgia, Michele)	Total Quality Management Implementation in Higher Education Settings. A Systematic Review	In this study, a systematic literature review was conducted. The research strategy was applied to studies published between 2000 and 2020, and for the purposes of this article, 40

			articles were selected through screening and review. Practical issues have been identified at the upper levels. These issues are related to "senior management, human resources, customer focus, benchmarking, continuous improvement and process management".
2023	(Yusuf, Furtasan Ali)	Total Quality Management (TQM) and Quality of Higher Education: A Meta-Analysis Study	In this article, "TQM" is defined as a program that provides a structure (framework) and tools. This study aims to prove and determine the impact of TQM on higher improvement.

Source: Table 1 created by the authors.

RESULT

Total quality management puts education systems in a process of positive change and prepares qualified individuals who can respond to society's expectations from education. Thanks to this positive rapid change in the education system, social development will also be achieved with the individuals who emerge. Every qualified individual in working life is very important for society. In this context, total quality in education offers opportunities to the society in terms of the country. As these opportunities are seized, social welfare will be strengthened. The main title of education, which is the priority of a society in development, is combined with total quality management and total quality management in education is created and implemented by stakeholders to increase the peace and power of the society.

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