

# PUBLIC MANAGEMENT

## EFFICIENCY MANAGEMENT OF SCHOOL UNITS THROUGH TOTAL QUALITY MANAGEMENT

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### Abstract

*The approach to total quality assurance is linked to continuous development. The purpose of this article is to examine the degree of implementation of TQM practices in schools. An analysis of Total Quality Management is attempted. Its philosophy, its culture, its governing principles and its main characteristics are examined. In addition, the concept of quality is presented as well as the importance of total quality, highlighting the importance of the work team, the role of the leader and how he can instil the philosophy of Total Quality Management in his human resources, the importance of communication and the dissemination of knowledge within a school unit. In order for a school to implement Total Quality Management, it must be able to ensure the participation of all its potential. Continuous improvement is required in Total Quality Management. Constituent members must be constantly changed to ensure their work. In educational administration, the role of the head of the school unit is of utmost importance and plays a key role in its implementation.*

**Keywords:** *Total Quality Management, School Unit, Education, Improvement.*

## FROM INDUSTRY TO EDUCATION

### Management in education

In the field of management science, many researchers have not come up with a clear definition for the term "management". However, there are common elements found in different approaches, such as the existence of an organizational structure where each member has a specific role, as well as the existence of goals and processes that must be understood as the organization seeks to carry out its functions. These elements can be recognized in an educational organization, where all activities aim to achieve the goals of teaching and learning, and each member contributes to the achievement of these goals (Mukhopadhyay, 2020).

Education can be understood as a space where administrative principles are applied, presenting similarities with other sectors. However, adaptations of the general principles are needed in order to be fully applicable in the field of education. The general purpose of education is referred to in article 16 of the Constitution and is served through the

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administrative function at the school unit level, creating all the conditions for maximizing the participation of those involved in it (Katsaros, 2008, p.16). The management of school units can be defined as a system of action aimed at the rational use of available human and material resources, in order to achieve the goals of the educational organization. The administration, through its executives, aims at the precise determination of educational goals, the application of the legal rules that regulate the way schools operate, the creation of a suitable working environment, the utilization of resources, the determination of the degree of effectiveness of each organization and , finally, in the redefinition of the educational goals according to the new data arising from the external environment (Mukhopadhyay, 2020).

Educational organizations are characterized by particularities that require the adaptation of management principles to existing conditions in order to be applied. Specifically, the aspects related to this adjustment are as follows:

- Human resources.
- Academic mission.
- Communication and collaboration.
- Financial management.

### **The Principles of Educational Administration**

The administrator of an educational institution must apply and integrate these principles in his/hers daily operation. The democratic principle of administration suggests that the principal should involve teachers and staff in decision-making and conduct open dialogue and debate. This creates a climate of mutual cooperation and recognition of the views of all members of the educational community.

The principle of direct supervision supports the need for personal contact and communication between the principal and teachers. This contributes to achieving effective human relations and ensuring the smooth operation of the school unit. The principle of justice requires impartiality and fair treatment of all members of the school community. The manager must ensure that his decisions and actions are fair and based on objective criteria, thus promoting equality and meritocracy. The principle of decision-making refers to the importance of calmness and careful study before making decisions. The principal must consider problems and information carefully and make decisions that will be in the best interest of the educational community. Finally, the principle of adaptability refers to the importance of collecting and analysing data to adapt educational practices to the needs of the school unit. The principal must be able to adjust his decisions and actions based on the data collected and the circumstances affecting the school. The above principles are a guiding principle for educational administration and help to formulate a strategy for educational administration. However, the successful implementation of these principles requires experience and management skills on the part of the school principal (Mukhopadhyay, 2020).

### **Total Quality Management and Human Resource Management**

Linking Human Resource Management (HRM) with Total Quality Management (TQM) is critical for schools seeking to achieve competitive advantage. The HRM aims at the

continuous improvement of the unit's human resources. This is achieved by looking at improvements in human resource management, human resource planning, communication, as well as through the use of staff opinion research about the company they work for. These improvements and adaptations allow each school unit to develop and make the most of its staff in order to achieve its goals and be fully efficient in the function it is called to follow (Mahapatro, 2022). School units maintain and develop important skills of their employees through their recruitment, training and development. The role of managers is to:

- Determine the required specialties of the educational staff, taking into account the requirements and needs of the school.
- Plan the recruitment and professional development of trainers.
- Establish and implement training programs to develop the skills and knowledge of their staff.
- Check the effectiveness of education and evaluate the performance of teachers.
- They continue to develop their people after their initial training phase by providing ongoing training and professional development.
- The goals and desired performance of a school unit are determined and continuously revised through collaboration with the educational staff. In particular, the managers:
  - Assign goals and responsibilities to the educational staff, defining expectations for their performance.
  - They evaluate the educational staff, recognizing the achievement of the goals and providing feedback for improvement.

A school unit promotes the involvement of all its people in quality and continuous improvement by considering:

- The use of idea collection programs.
- The use of quality tools, such as quality circles and quality improvement teams.
- Council conferences and regular meetings.
- Strengthening the morale of the trainers for their greater activity. (Stronge et al, 2021).

Another approach to the relationship of Total Quality Management with the operation of the personnel department is that of the academics of the UMIST Quality Management Centre, Dale, Cooper and Wilkinson.

### ***Implications of the implementation of the DOP in school units***

The consideration of quality as a new administrative philosophy has given a new dimension and content to the management of school units. According to the principles of this new philosophy, quality improvement is an integral part of a school's strategy and contributes to improving its competitiveness and productivity. Indeed, quality is one of the biggest challenges for modern educational institutions. To achieve this quality improvement and utilization of human resources, it is necessary to adopt a specific framework or theoretical framework of Total Quality Management (TQM). This framework is the basic prerequisite for an objective and deep analysis of the issue of quality. Through this theoretical framework, it is

possible to study the utilization of human resources in order to achieve and maintain high quality in a unit. The Total Quality Management approach contributes to the development and effective management of human resources, as it makes quality and its continuous improvement a central pillar of the school's success and development (Saffar at al, 2020).

## **CONCLUSIVE UNDERSTANDING ABOUT TQM IN EDUCATION**

### **Total Quality Management in Education**

#### ***Basic concepts***

Education is a long-term investment for the citizens of any country and its design must follow modern pedagogical trends with a focus on quality in learning. The constant changes occurring in the international socio-economic context also affect the education sector. All levels of education must evolve to prepare the new generation to face the increased challenges of the 21st century. The requirements for efficient and quality provision of educational services, as well as the need for accountability from educational organizations and school units, come from three main social trends. First, the new developments and research data in pedagogy, psychology and educational technology that have emerged during the 20th century. Second, the ever-increasing availability of financial resources for education. And thirdly, the demand from the students, their parents and the wider society to improve the quality of the education provided.

The application of the principles of Total Quality Management in education contributes to shaping the vision, mission and quality of the organization, just as in the field of business. The management officers are committed to strictly follow the principles of TQM to achieve the best results. All procedures are focused on satisfying the expectations and needs of those served, with an emphasis on fulfilling the expectations of the student community. At the same time, the successful operation of an education organization results from the cooperation, interaction and empathy of all its members. Also, in education, basic approaches have been highlighted that have been incorporated and applied in educational organizations. These include process redesign, performance benchmarking, self-evaluation, and the cost of quality. In addition, the educational organization must have a clear picture of the overall situation of the school and implement protocols, prevention and effective utilization of resources to achieve the goals set by the executives.

In addition, Total Quality Management (TQM) has a positive effect on the operation of educational organizations. Cooperation and communication between members of the organization, including students, parents, colleagues and the wider community, are key factors that promote the effective operation of the school unit. TQM promotes a new view of the role of the teacher, where he emerges as a supporter of the students, a mentor and trainer, as well as a partner with all the agencies involved, beyond the four walls of the classroom. The implementation of TQM leads to changes in the teacher's approach and perception of himself, promoting collaboration, empowerment and improvement of the capabilities of all involved. Finally, the TQM promotes the evaluation and control of processes to identify weaknesses and ensure the correct implementation of the design. Continuous improvement is its priority and it

encourages all individuals to take an active role and contribute to the improvement of actions and quality in general. The TQM is not limited to a temporary program, but represents an innovative mindset and way of life that permeates all aspects of the professional and social sphere. Properly implemented, the TQM contributes to the improvement of the quality of education and to the empowerment of all the agencies involved (Ikhsannudin at al, 2021).

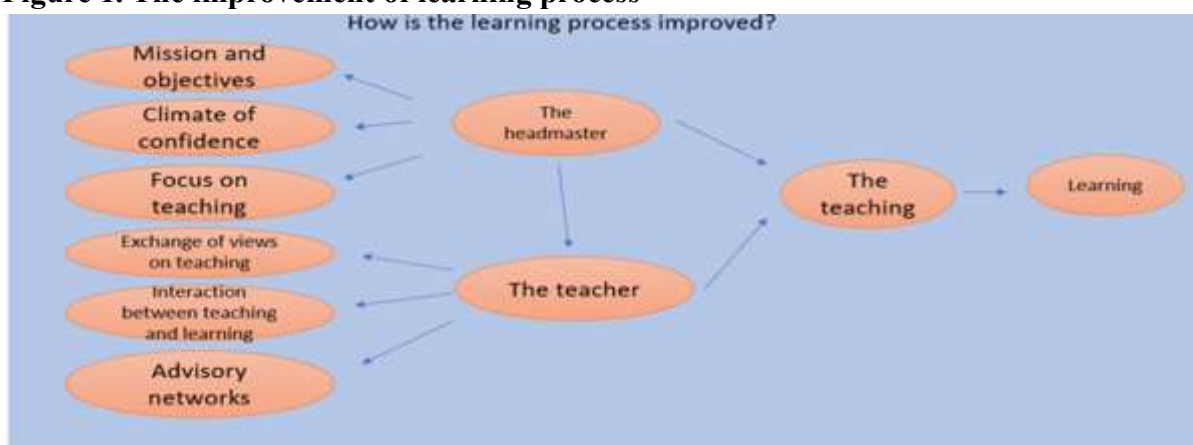
### Organizations and quality systems applied to education

Educational organizations, in order to improve their quality, have applied Deming's philosophy, initially to the administrative side of the school system. However, it was discovered that this philosophy and principle of continuous improvement can also be applied to the learning process, with an emphasis on:

- In the learning produced and not in the process leading to it. This means that educators must focus on creating processes that facilitate student learning, rather than focusing solely on teaching.
- In quality preceding quantity. Although there is often an emphasis on the volume of knowledge to be covered, the quality of learning should take precedence over quantity.
- In new educational approaches, such as the differentiation of classroom teaching, the interdisciplinary approach to knowledge, cooperative and active learning. These approaches aim to promote active student participation and create an environment that encourages exploration, the development of critical thinking, and independent learning.

However, in order to improve the learning process, cooperation and the exchange of good practices between teachers is required. Also, school leadership must create a climate of trust and define clear goals, mission and direction for the school. Teachers, for their part, must collaborate with their colleagues and maintain constant communication with advisory networks.

**Figure 1. The improvement of learning process**



In summary, a general quality improvement system for a school can be established based on the above process. Initially, data collection is carried out for the operation of the school, while at the same time the necessary planning and coordination is carried out for the implementation

of the improvements. School staff are involved in these processes. The school's goals and priorities are then defined based on the learning outcomes it wishes to achieve. This means that goals are set with the quality of learning in mind, not just the quantity. Finally, teaching approaches, course expectations, and assessment mechanisms to be used to monitor progress and assess students are planned. This general system of quality improvement is based on a continuous and continuous effort to improve the quality of education. By implementing this system, the school emphasizes the development of students, the achievement of educational goals and the continuous improvement of teaching practices.

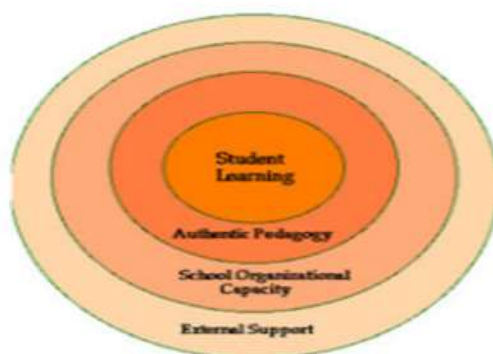
### *The system of support circles at national and global level*

The quality system implemented in US schools in 1983 in order to restructure them is examined in the study by F. Newman and G. Wehlage (1995) with the application of "circles of supports". Basic conditions for the implementation of this system were decentralization, the possibility of choosing a school and flexible timetables.

According to this system, the focus is:

- Student learning: This specific learning model shapes the curriculum, teaching and assessment with an emphasis on quality.
- Authentic pedagogy: New process standards are followed that enhance academic learning, regardless of the students' social background, and require the development of a reasoning process, a deep understanding of the teaching objects and the application of knowledge to important everyday problems.
- The organizational adequacy of the school: This aspect of revolutionary restructuring focuses on the mutual support and interaction of the educational staff of the school.
- External support: Financial, technical and psychological support is provided to schools by the state, local authorities and parents. This support can be achieved through the establishment of high quality standards in education, the continuous training of staff and the strengthening of school autonomy (Oikonomou, 2022).

**Figure 2. Support circles**



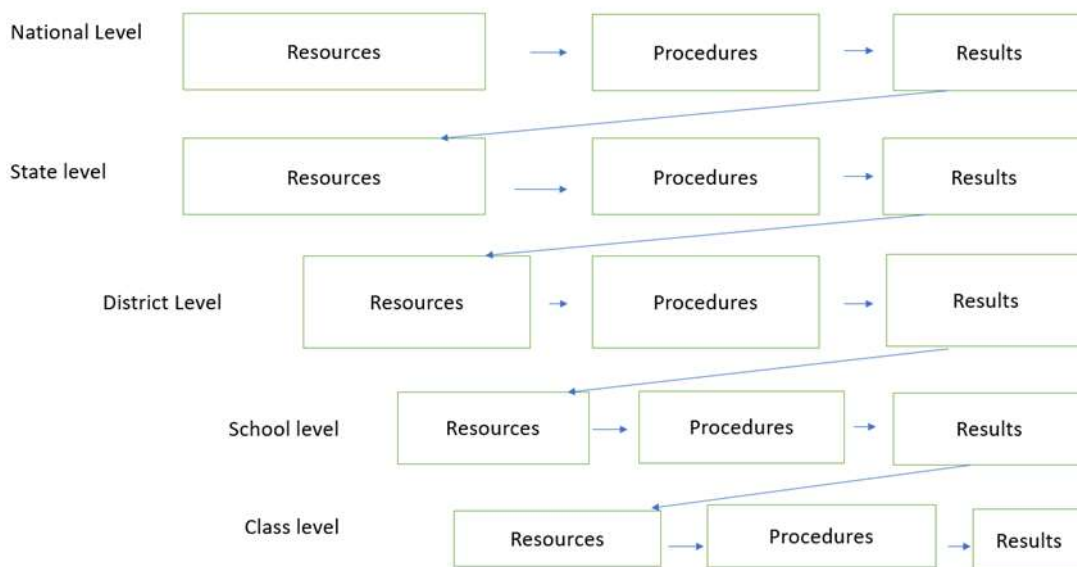
### *The system of multilevel organizations*

In Australia, another quality system was implemented to reform school organizations. This system is based on the principle that each school acts as a customer, but also as a producer of services that it provides to other departments. A central role in this system is played by performance indicators, which are used for the following purposes:

- Evaluate the impact of educational reforms.
- Provide information to educational policy makers on the most effective improvement practices.
- They explain the reasons for the changes.
- They provide information for decision making and management.
- Focus on effort.
- They set objective educational goals.
- Monitor patterns and trends.
- Anticipate future changes.

Based on the theory of multilevel systemic organizations, the school is a system with many levels that are closely related to each other. The outputs of one level are inputs to the other, and thus decisions at one level simultaneously affect the other levels. In the figure that follows, the multi-level structure of the school as a system appears (Oikonomou, 2022).

**Figure 3. The school as a multi-level system (Cuttance, 1990)**



### ***The implementation of quality systems in schools in the European Union***

Project Based School Management (Pro-School) is a multilateral program funded by the European Union's Lifelong Learning Program 2008-2010. The goal of the program was the development of a new management methodology in Secondary Education through the adoption of the quality project-based management methodology (management by objectives). At the same time, it aimed to improve the efficiency and quality of schools, in accordance with the requirements of modern society. The main areas of the program included research on

school quality indicators and the design of educational materials to upgrade the management skills of educational staff. Five countries participated in the program, including Turkey, Belgium, the Czech Republic, Greece, Italy and Romania. Inside every school are permanent structures needed to carry out its basic functions, such as the principal, administrative staff and teachers. There are also temporary structures that work together to perform specific tasks. To deal with the complex structures of the school, these structures must cooperate with each other, as shown in the figure below (Karakatsani, 2010).

**Figure 4. School management through projects**



### ***The implementation of quality systems in schools in Greece***

The implementation of quality systems in schools in Greece has been the subject of many efforts and reforms during the last decades. The goal of these efforts is to improve the quality of education and develop strong and efficient school organizations. Quality systems promote a philosophy based on continuous improvement, evaluation and goal orientation of the educational process. In this context, some of the efforts that have been made in Greece are the following:

- Implementation of quality development programs
- Evaluation and monitoring
- Staff training
- Working with parents and the community

Despite all these efforts, the implementation of quality systems in schools in Greece still faces challenges, such as lack of resources and bureaucracy. However, efforts to improve continue, as the quality of education remains high on the educational policy agenda ( Economou, 2022).

### **T.Q.M. and the transition to schools**

According to Ruben (2018), the market economy has proven effective in encouraging learning, adaptation and renewal. So the challenge today is to design companies that can emulate these market characteristics. In this context, the TQM emerges as a new approach to the scientific thought and practice of management, with applications in the administration of



education. According to this philosophy, the school unit is considered as an integrated social system, with two-way relationships between all the members that make it up (principals, teachers, students, school support staff, parents, local community).

The satisfaction of the needs of all members of the school community and the strategic planning of the actions of each educational organization are directly linked to the improvement of its quality and efficiency. In addition, TQM recognizes that for an organization to be truly effective, each part of it must work smoothly with the rest, because each person and activity affects and is affected by others. In summary, Total Quality Management is a philosophy and an approach emerging in the field of education with the aim of improving the quality of teaching and the organization of school units, oriented towards the development and well-being of all involved members of the school community.

### **The transfer of T.Q.M. from industry to education**

The necessity for quality education is imperative for students. Sources of quality in education should include well-maintained buildings, qualified teachers, high moral values, successful examination results, specialization, parental involvement and connection with the business and local community, abundant resources, technological implementation, strong leadership, interest for students and balanced syllabus. Some states continue to promote changes in the education sector in order to improve their educational quality. These changes include innovative curricula, new teaching approaches, school improvement plans, involvement of stakeholders (principals, teachers, parents and students) in the decision-making process, changes in school management and the adoption of standards such as ISO 9000 to ensure quality.

## **CREATING THE ENVIRONMENT AND PROCEDURES THAT LEAD TO CHANGE**

### **Design and implementation of a "quality school"**

It is clear that schools, perhaps more than any other organization, are absolutely dependent on knowledge, which is their primary means of producing work. This means that they could particularly benefit from the introduction of quality tools (Ruben, 2018).

In most schools, the focus is mainly on student outcomes, i.e. achieving good grades and good exam results. However, in a "quality school" that applies the principles of Total Quality Management (TQM), the goal is to realize high quality processes throughout the system. Knowledge gained from theory forms the basis for prediction and leads to system improvement. Rather than focusing solely on numbers and results, the TQM supports the use of numerical data as a useful tool for gaining knowledge. Numbers can be used to analyse and understand the system and its parts, but it is knowledge from theory that enables prediction and improvement. "Quality schools" stand out for their effort to achieve performance excellence. Applying the principles of total quality, they analyse data, understand the system as a whole, understand what can be achieved by the system and identify the causes that cause the school to fail. This philosophy leads to continuous improvement and development of the educational environment (Sharma, 2018).

### ***The advantages of D.O.P. in schools***

Gumus (2020) states the following theoretical advantages of applying Total Quality Management (TQM) principles in schools:

- Educational compatibility: The TQM process values people and their performance, so it must be compatible with the development conditions of the educational process.
- Principles of law: The TQM requires the training of all staff, a philosophy that is compatible with the principles of the school as an institution.
- Ethically comparable: TQM is based on universal values, such as responsibility, loyalty and loyalty.
- Compatible with existing organizational structures: The TQM does not necessarily require drastic changes in the educational organizations or educational systems where it is implemented.
- Long-term commitment to improvement: TQM is a long-term approach to quality improvement based on organizational self-actualization.

In practice, the implementation of TQM tools in schools has led to encouraging results. These advantages have supported the development of initiatives based on the principles of TQM in many educational systems worldwide and have created a literature focused on quality management in education.

### ***Difficulty in implementing the TQM in education***

Perception and acceptance of impending changes in education is a critical issue. Total Quality Management (TQM) can be a reliable tool when management's vision is compatible with the TQM philosophy and there is strong leadership to support it. However, if TQM is simply seen as a quick fix without real management support, then it may not work when something new comes to the fore. The effort to introduce TQM in schools requires a transition from a production approach to an operational approach with an emphasis on the customer, i.e. the students and the educational process. This can be a problem as existing practices and approach to training need to be reviewed. In addition, requiring school staff to change their mindset and mindset may cause resistance to change. The fear of being different and the clinical approach of following the knowledge and requirements of the old system can hinder adaptation to the new knowledge and practices of the TQM. In summary, the implementation of TQM in education is challenging, but with the right leadership, conscious need for change and commitment to quality improvement, it can be successfully achieved and lead to an improvement in the educational environment (Mukhopadhyay, 2020).

### **Questioning the effectiveness of TQM**

The study of schools must avoid traditional analyses that place schools in categories such as successful/failed or effective/ineffective. Schools are complex organizations with a variety of processes and policies. The implementation of TQM can help bridge the gap between top management and middle managers in decision-making, but at the same time it can increase competition and fragmentation due to praise, rewards and categories between individuals and

groups. TQM helps teachers focus on the client, i.e. parents and students, but it can increase the pressure on them and cause anxiety. In addition, it can result in a large expenditure of time for teachers in completing tasks such as grading students, completing reports, and updating records ( Saffar at al., 2020).

TQM represents a methodical and innovative approach to education, but there is a gap between its adoption and the actual willingness and effort devoted to it. Some school leaders are concerned that the implementation of TQM is a big risk, and only those that can afford to lose are willing to adopt it. Although TQM can improve existing processes, it can be difficult to bring about radical change. Real transformation requires inspiration and leadership. In conclusion, the adoption of TQM must be based on a conscious and long-term commitment from all involved, providing the appropriate support and resources for its successful implementation. (Crawford & Shutler, 1999).

### **Discussion and Conclusions**

The application of Total Quality Management (TQM) in education is indeed a promising approach to improving the quality and success of educational institutions. By emphasizing conscientiousness, continuous training, and improvement of teachers, TQM aims to create a system that provides a quality education for students. The focus on fair and inspirational leadership by school principals and the commitment of all stakeholders are critical aspects of ensuring improvement and maintaining quality in education. Additionally, the development of training programs for teachers and students to familiarize them with TQM principles and foster the necessary skills is essential for the successful implementation of TQM in schools. However, implementing TQM in the education system may encounter challenges due to the complexity of the system, the presence of multiple levels of administration, and the limited autonomy of school governing bodies. These challenges can hinder the smooth adoption and integration of TQM principles across all educational institutions. Overcoming these hurdles requires careful planning, ongoing commitment, and active involvement from all stakeholders. By incorporating TQM principles and fostering a culture of continuous improvement, educational institutions can strive for higher quality and greater success.

In conclusion, TQM offers a powerful framework for enhancing education and elevating the education system as a whole. It emphasizes on conscientiousness, continuous training, and improvement of teachers creates an environment that is conducive to providing quality education to students. To ensure successful implementation, fair and inspirational leadership by school principals, as well as the commitment of all stakeholders, are of utmost importance. While challenges in implementation may arise, addressing them through careful planning and ongoing commitment can pave the way for positive change. By embracing TQM principles and fostering a culture of continuous improvement, educational institutions can work towards achieving higher levels of quality and success in education, ultimately benefiting both students and society at large.

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