



TOTAL QUALITY MANAGEMENT PRACTICES IN MURSHIDABAD ELEMENTARY SCHOOLS

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RESEARCH ARTICLE



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Abstract

The purpose of this research is to see up to what extent total quality management (TQM) being practiced in elementary schools is based on teacher's perceptions and how it is related to different variables. In this study researcher used survey based descriptive research method. The sample was taken from Murshidabad district of West Bengal for this present study. Using stratified simple random sampling technique, Twenty Six Government and Ten Private Schools were selected randomly. A total of 410 questionnaires were chosen for analysis. A total of five dimensions and 30 itemed questionnaires were administered to elementary level teachers. Research findings revealed that there were some issue with certain parts of TQM practice, especially in the dimensions of Teaching-Learning Support Materials and Physical Facilities. Findings also indicate need for effective change of these two dimensions, giving appropriate training and proper utilization of human resource to improve the quality and to implement the principle of TQM. There were significant differences among elementary schools teachers perception of TQM practices based on variables of gender, locality and types of management. Learning is a lifelong process which continues throughout life, the success of primary schools has a direct impact on the quality of higher level of education. Thus, improving the quality of primary education should be the utmost or top priority if we want to build a robust, effective and well-functioning education system. This paper sheds light on how to improve the quality at this level.

Keywords: Total quality management, Elementary schools teachers, Murshidabad

Introduction

Organizations are structured entities which have been formed to achieve specific goals. To achieve their predetermined goals, organizations must constantly interact with various environmental factors and cannot operate in isolation from the outside world. Maintaining quality, standards and achieving sustainability requires them to stay aware and to continuously observe environmental changes and adjust accordingly which helps them to grow and develop. Rapid technological progress and advancements have removed the global barriers, making it essential for organizations to enhance their quality; standard and performance in order to stay remain competitive. In this context, Total Quality Management (TQM) has become as important and crucial philosophical approach which promotes continuous improvement and helps them to adapt effectively and efficiently for on-going changes.

TQM is an all-encompassing i.e., comprehensive and integrated management philosophy that brings different methods and practices to make sure an organization always meets and tries to go beyond what customers expect. It's not limited to one department or level; instead, it involves everyone across the organization. Leadership plays a key role by aligning plans, strategies, and day-to-day operations with the needs and satisfaction of students, while also encouraging strong employee engagement. For eliminating waste and promoting continuous improvement, organization that apply TQM focus on managing data very carefully and systematically throughout their whole processes. The TQM approach encourages, motivates every members in the organization to take shared responsibility and work together for maintaining quality and standard, supported by continuous learning and consistently monitor the process to improve their performance. Instead of focusing on strict, top-down system, TQM promotes an organizational culture based on shared values, collaboration, co-operation and teamwork, placing greater importance on mind-set and philosophy which ensuring quality.

Total: Involves the active participation of all employees in the work process. The term "Total" means that continuous improvement includes everyone and everything in an educational institution.

Quality: In the context of TQM, quality can be expressed as “meeting the wishes and expectations of customers in an ideal economical level and in a most suitable manner” or as “a dynamic state that is meeting or exceeding customers’ requirements, needs, expectations and desires”

Management: In TQM, management is a broad idea that includes both leadership and coordination. Strong leadership and good management are very important to achieve quality. Without them, quality improvement may not be possible. In TQM, everyone is seen as a manager of their own tasks, no matter what their role or position is. A manager’s job is not only to supervise but also to lead and support others to reach common goals.

Components of Total Quality Management

Leadership: The important and challenging part of TQM is building teamwork and helping everyone work together toward a common goal. At this stage, a strong leadership is needed for channelizing every employee’s efforts in a meaningful way to get the productive outcomes and to build a healthy competitive working environment. The main goal of leadership should be to improve the quality and performance, increase output and productivity and create a workplace where every employee can take pride of their work. The aim of leadership is not just identifying and recording failure but helping employees understand the root causes of the failure and supporting them in performing their job more efficiently and with less efforts. A strong leader plays a key role in boosting employee performance and commitment. Therefore, we can say that effective leadership, along with a positive organizational climate and culture, helps in developing TQM practices and behaviours. Although TQM methods are well-suited to the field of education, various cultural challenges and conflicts may hinder their successful implementation.

Customer Satisfaction (CS): A customer may be any group or person who is receiving any service or product from another group or person. In TQM, CS is considered as main measure of quality. Thus, recognizing and understanding the need of the customer is very important to achieve a high level, standard of quality. All individuals involved in the production processor those affected by its outcomes can be viewed as customers. TQM identifies two main types of customers: internal and external. External customers are those outside the school who are influenced by its output and performance, such as parents, the local community, colleges, businesses, government agencies, and industries. Internal customers, on the other hand, are those within the school system, including teachers, students, and staff.

Education: In Total Quality Management, education plays a vital role. Effective leaders and education administrators should provide good quality of teaching and training to their team members. They should act as guide and mentor, giving their teams the necessary resources and support materials to perform well within the quality system. Most importantly, it is the administrator who should get proper training first before they train others.

Continuous Improvement: Total Quality Management is a philosophical concept whose main principle is to make continuous improvement. It means making small but continuous improvement can make big differences which greatly improve quality and cost reduction over time (Deming, 1986). TQM is consistently focused on getting a new way to make every part of the process very effective and efficient. To achieve the predetermined goals i.e., continuous improvement one need to frame a well-designed strategy, well-defined goals and proper way to measure progress. This philosophy or principle based on the assumption that each day offers a new opportunity or chance to get better. TQM considers consistent improvement and change management are very important and crucial parts of success and acknowledges that people in a dynamic organization are always growing and very open to change. The Japanese call this concept of continuous improvement as Kaizen.

Involvement: An organization should make use of the creativity, potentiality and skills of each and every member who are actively involved and motivates everyone to take part in the process of quality improvement. When a synergetic approach is adopted, means when everyone works together as a team, they will more likely to achieve results that even go beyond their expectation

Teamwork: Highly skilled administrators alone are not enough to deliver the best outcomes, performance, products, or services. All employees must work together and support one another to achieve the desired goals. To reach its objectives, an organization should prioritize teamwork built on harmony and cooperation.

Data focused work: All quality initiatives in Total Quality Management (TQM) are grounded in practices that rely on empirical data and statistical analysis. In fact, collecting and analyzing data is a core component of TQM. However, data alone is not enough to become an effective leader. While a supervisor may focus on auditing failures and examining numbers, a true leader goes further listens and learns, studies and understands, and most importantly, works continuously to improve the overall system (Deming, 1986).

Total Quality Management in Education: TQM, being a contemporary approach to management, can readily be used in schools in general and especially in schools whose mission is to enable students to achieve their full potential Recent studies of TQM have brought with them holistic approaches to restructuring and modernizing education systems. TQM principles have proven to work in schools in diverse ways, resulting in positive change. Through its practice, school improvement is a continuous process, creating a sense of unity, flexibility, and trust. Furthermore, the basic TQM principles align closely with the principles of effective schools. Utilizing TQM, teachers have an effective framework to recognize problems in schools that prevent them from being effective and the pragmatic means to overcome them.

Being a people-oriented approach, TQM goes a long way in the enhancement of the quality of education and the functioning of schools. Being people-driven at every level, the success of educational systems, which also serve people as both the inputs and

the outputs, is highly based on people's satisfaction. People's needs cannot in anyway be met in the system if true effectiveness cannot be achieved.

Primary schools, as the cornerstone of the education process, have the most important role to play in guaranteeing educational quality and ultimately the success of the system in the long term. It is at this level that the basic values that form social and cultural identity, lay the foundations for personal growth and development, and create the necessary attitudes and habits of a healthy social life are taught. The previous learning experiences greatly influence the quality of life for individuals as well as society as a whole. Because learning is a lifelong process which continues throughout life, the success of primary schools has a direct impact on the quality of higher level of education. Thus, improving the quality of primary education should be the utmost or top priority if we want to build a robust, effective and well-functioning education system

Methodology

Researcher used descriptive survey method for this study. For collecting reliable, accurate data, investigator developed a questionnaire based on key dimensions of Total Quality Management: physical facilities, leadership, teachers, teaching-learning support materials and continuous improvement. From a variety of sources, 38 statements were gathered that showed how people felt about different parts of Total Quality Management. Five experts were given the items that had been collected and asked what they thought about the item's objectivity and appropriateness. The judgment and opinions of the research experts have been considered, and overlapping items have been found by looking at what they said and what they suggested. Based on what they said, the number of items was reduced from 38 to 32. A group of 100 ESTs from the Murshidabad district of W.B were presented with a set of 32 statements. Item analysis was conducted on their responses and items with higher 't' values were selected for the final study. Ultimately, 30 items were chosen. The final scale includes 12 negatively worded items and 18 positively worded items.

The 'r' or reliability of the TATTQM was determined to be 0.931 (N=100) using the split-half method. The reliability was found to be 0.905 while using the Cronbach's alpha.

The sample was taken from Murshidabad district of West Bengal for this present study. The investigator personally visited Twenty Six Government and Ten Private School to distribute a total of 650 questionnaires. Out of a total of 650 questionnaires distributed, the teachers completed and returned 450. The questionnaires we received were carefully organized, and any unclear or incomplete responses were excluded. We then calculated the numbers, grades, scores based on the answers, responses to the statements in the questionnaires. Ultimately, 410 elementary school teachers diligently completed the questionnaires that were chosen for analysis. For this study, schools were selected randomly and then Disproportionate Stratified Simple Random Sampling technique was used for conducting the study.

The findings and interpretations

A general view

Looking at the overall findings in Table I, without considering the independent variables (IV), it appears that teachers believe they sometimes observe Total Quality Management practices in the areas of "Teaching-Learning Support Materials" and "Physical Facilities." In contrast, for all other dimensions, they report that they usually witness the presence of TQM indicators in their schools. This suggests that while TQM practices are generally well implemented in most areas, the implementation in the areas of support materials and physical infrastructure remains only moderate. To explore this further, the researcher asked teachers whether the necessary changes had been made to support TQM principles in these specific areas and whether their schools had successfully addressed resistance to change. The responses indicate that the required changes have not been fully carried out and that resistance to change still poses a challenge. This highlights a gap in the effective application of TQM in these dimensions.

Gender

According to the T-test (Table II) results there were substantial meaningful differences between the idea of male and female teachers except teaching learning support materials dimension. In the dimension of "teaching learning support materials" female teachers (M =14.20) have more positive opinion about TQM practice than male teachers (M= 13.96).

Table I: General view of teachers on dimensions of TQM

Dimensions of TQM Practices	M	SD
Continuous Improvement	28.64	3.92
Teaching learning support materials	14.03	2.84
Physical facilities	14.62	2.65
Head teachers	30.03	5.01
Quality teachers	35.00	4.37

Notes: M: Mean, SD: Standard Deviation

Table II: Teachers views according to gender variables

Dimensions of TQM Practices	Female		Male			
	M	SD	M	SD	t	p
Continuous improvement	29.64	3.44	28.16	4.06	3.63	.000*
Teaching learning support materials	14.20	2.73	13.96	2.89	.844	.399
Physical facilities	14.22	2.18	14.82	2.84	2.17	.032*
Head teachers	31.44	4.60	28.64	5.03	5.85	.000*
Quality teachers	28.55	3.82	27.34	4.57	2.65	.008*

Notes: *p < 0.05 (two tailed test), M: Mean, SD: Standard Deviation, t: t-value at the independent sample text; p Significant value

Researcher observed that female elementary school teachers were more inclined towards collaboration, co-operation, team work and continuous improvement. They had better communication style and adopted suitable teaching-learning methods which were student-centred. Researcher also experienced that individual professional development; good supporting system and very favourable work environment were the reasons to have a more positive attitude towards TQM.

Locality

According to the T-test (Table III) results there were substantial meaningful differences between the idea of Urban and Rural elementary school teachers. The findings shows that the idea of Urban and rural teachers have significant difference about the practice of TQM in the school. The obtained 't' value for the dimensions of Continuous Improvement, Teaching Learning support Materials, Physical Facilities, Head Teacher or Leader and Quality Teacher with pertaining to Locality are 5.25, 5.66, 2.32, 5.85 and 6.36 correspondingly. The obtained 'p' value for all these dimensions are <0.05 significance level. Thus, it is apparent that there exists a statistically significant difference in mean scores between Rural and Urban ESTs across these dimensions. Thus, Rural and Urban ESTs differ particularly, notably in Continuous Improvement, Teaching Learning support Materials, Physical Facilities, Head Teacher or Leader and Quality Teacher aspects

Table III: Teachers views according to locality variable

Dimensions of TQM Practices	Urban		Rural			
	M	SD	M	SD	t	p
Continuous improvement	29.64	2.79	27.67	4.58	5.25	.000*
Teaching learning support materials	14.80	2.36	13.28	3.07	5.66	.000*
Physical facilities	14.93	2.24	14.32	2.99	-2.32	.021*
Head teachers	31.43	4.60	28.64	5.03	-5.85	.000*
Quality teachers	29.05	3.45	26.43	4.79	6.36	.000*

Notes: *p < 0.05 (two tailed test), M: Mean, SD: Standard Deviation, t: t-value at the independent sample text; p Significant value

Researcher observed that urban schools had better resource materials, physical facilities or infrastructure and support system which facilitated the teacher to implement and see the benefits of TQM practices than rural schools. The researcher also noted that professional development programme, skills development programme, workshops and training opportunities were more in urban schools than the rural schools. Urban school teachers had more exposure to modern and technical educational practices and better management system because of closeness of institutions or educational hubs than in rural area's school. Investigator also experienced that urban schools have more diverse needs and educational expectations which facilitates making of TQM principles more relevant and attractive than in rural schools.

Types of Management

According to the T-test (Table III) results there were meaningful differences between idea of Govt and Private school teachers about the practice of TQM. The obtained 't' value for the dimensions of Continuous Improvement, Teaching Learning support Materials, Physical Facilities, Head Teacher or Leader and Quality Teacher with regards to Management are 5.66, 4.53, 5.52, 4.82 and 5.02 correspondingly. The obtained 'p' value for all these dimensions are less than 0.05 level (p<0.05). Thus, it is apparent that there is a significant difference in mean scores between Government and Private ESTs across these dimensions. Thus, Government and Private Elementary school Teachers differ significantly in Continuous Improvement, Teaching Learning support Materials, Physical Facilities, Head Teacher or Leader and Quality Teacher aspects.

Table IV: Teachers views according to management variable

Dimensions of TQM Practices	Private		Government			
	M	SD	M	SD	t	p
Continuous improvement	30.55	1.94	28.06	4.19	5.66	.000*
Teaching learning support materials	15.15	1.93	13.69	2.99	-4.53	.000*
Physical facilities	15.88	2.13	14.23	2.68	-5.52	.000*
Head teachers	32.12	3.07	29.39	5.32	-4.82	.000*
Quality teachers	29.63	3.52	27.15	4.45	5.02	.000*

Notes: *p < 0.05 (two tailed test), M: Mean, SD: Standard Deviation, t: t-value at the independent sample text; p Significant value

Researcher observed that private elementary schools had more flexibility in allocating resources for training and development than in government elementary schools. The competitive environment of private schools facilitated higher motivation among teachers to improve their performance and attract more students whereas government schools on the other hand, had less direct competition. Private schools were more flexible in decision-making process than government schools which allowed them to work more effectively and efficiently. Investigator also noticed that the work culture in private schools were more oriented towards modernisation, innovation and continuous improvement, whereas government schools had rigid structures, system and practices. Feedback system was more prominent in private schools than in government schools which helped them to develop a more positive attitude towards TQM.

Conclusion and Discussion

This research investigated how well the idea of Total Quality Management (TQM) is being used in Indian elementary schools based on teacher perceptions. The research findings indicate that, even with initiatives by the Ministry of Education like holding seminars and launching policy initiatives over the past few years, there are still large gaps in implementing TQM practices at school levels. Specifically, 'teaching and learning supporting material' and 'physical facilities' continue to be major areas of concern.

In order to successfully incorporate TQM into schools, change needs to occur on multiple levels: creating supportive legal systems, reinforcing social networks which can facilitate collaboration and teamwork, education of the stakeholders regarding practices of TQM, and encouraging them to participate proactively in the process. Educational authorities have attempted this, but necessary changes have yet to gain roots within the context of the schooling setup.

Literature also identifies that change resistance is a normal response, particularly when teachers and staff are being called on to alter long-established outlooks and habits- something which is frequently called for in the implementation of TQM. It is at this stage, then, that the leadership of the school plays such an important role. What is called for is transformational leadership to infuse the culture of the school with the values of TQM and to lead the institution through the change process.

Notably, although it has been indicated in some research that school administrators have not yet adopted the principles of TQM, the increasing number of them are becoming convinced of the necessity of meaningful change. Hence, the first step towards establishing the foundation of Total Quality Management in education is to train the school administrators as change agents.

In the present study the researcher observed a significant, substantial difference between Male and Female ESTs towards TQM. The findings of the study by Pour & Yeshodhara (2004), Selvam, M (2006), Gupta, Seema (2015), Panneer, M (2016) and Jaiwati (2022) found the same results that female educators had more or high favorable, positive attitude towards TQM than male instructors. Researcher observed that female elementary school teachers were more inclined towards collaboration, co-operation, team work and continuous improvement. They had better communication style and adopted suitable teaching-learning methods which were student-centred. The investigator found that there was a significant, substantial difference between Rural and Urban ESTs concerning their Total Quality Management. The findings of the study by Pipatsivapong, Kittipong (2011) confirmed the same finding that there was a high difference in Total Quality Management between Rural and Urban School teachers. On the other hand, the study conducted by Selvam, M (2006), Panneer, M (2016) found that there was no substantial disparity, discrepancy, difference and variation in TQM between Rural and Urban school teachers, the findings was contradicted from the present study. Researcher observed that urban schools had better resource materials, physical facilities or infrastructure and support system which facilitated the teacher to implement and see the benefits of TQM practices than rural schools. The Researcher found there was a significant difference between Govt. and Private ESTs with regards to Total Quality Management. And in the previous study conducted by Pipatsivapong, Kittipong (2011) and Panneer, M (2016) found the same results; there was a considerable, notable and substantial disparity, discrepancy and variation between Government and Private ESTs concerning their Total Quality Management. Furthermore, research conducted by Selvam, M (2006) found that there was no significant difference between Rural and Urban school educators, instructors pertaining to their attitude towards TQM. Researcher observed that private elementary schools had more flexibility in allocating resources for training and development than in government elementary schools. The competitive environment of private schools facilitated higher motivation among teachers to improve their performance and attract more students whereas government schools on the other hand, had less direct competition. Private schools were more flexible in decision-making process than government schools which allowed them to work more effectively and efficiently. Investigator also noticed that the work culture in private schools were more oriented towards modernization, innovation and continuous improvement, whereas government schools had rigid structures, system and practices. Feedback system was more prominent in private schools than in government schools which helped them to develop a more positive attitude towards TQM. To successfully implement the TQM principle in school there is a need a very well organized workshop that deepens teachers understanding of TQM and its principle. The main aim of this workshop should be to include healthy interactive sessions where teachers get to know the application of TQM strategies as to how to use it in the classroom setting for effective implementation.

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