Application of Total Quality Management in Public Secondary Schools in District Gujrat

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Abstract

The standard and quality of the education system have been one of the biggest worries. The quality of a country's education is very important for its growth. The goal of TQM as a management philosophy and practice is to make the best use of an organization's people and things to reach its goals. The study was done to examine the implementation of Total Quality Management (TQM) in public secondary schools within the Gujrat district. The study was directed by three research questions and one null hypothesis. A descriptive survey methodology was utilized. The population comprised all 318 public secondary schools in Gujrat. A multi-stage sample method was utilized to choose 100 people to participate in this study. This group included 25 headmasters, 25 deputy headmasters, and 50 teachers. A self-constructed instrument questionnaire was utilized for data collection. To guarantee the content validity of the instrument, the perspectives of seven specialists from the Education Department at the University of Gujrat were solicited. To answer the three research objectives, the researcher used descriptive statistics, the mean, and the standard deviation. Simultaneously, the null hypothesis was evaluated utilizing inferential statistics ANOVA at a 0.05 significance level. The study's findings indicated that the "total commitment" was partially implemented in the administration of secondary schools. The results demonstrated partially implementation of good communication and collaboration. This means that TQM is only used a little bit in the Gujrat district. Some suggestions were given, such as that QAED should set up seminars, workshops, conferences, and training sessions for school staff to talk about TQM traits. Headmasters should be completely dedicated to using the TQM principles to run their schools well. This way, quality education goals may be achieved.

Key words: *Total Quality Management (TQM)*

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Introduction

One of the biggest worries has been the grade and quality of the education system in Pakistan. The growth of every nation depends on how good its schools are; thus, people normally work hard to make sure that schools are good at all levels. If Total Quality Management (TQM) is used, especially in the management of secondary schools, the quality level that is being projected will really be met.

TQM is a way of thinking about and doing management that tries to bring together the people and things that an organization needs in the best way possible to reach its goals. To improve quality responsiveness and change how their employees feel about TQM, many firms are running programs, including sessions, workshops, and talks, to help their businesses grow. In more recent years, educational managers have written about how TQM can be used in schools. Total Quality Management is the process of teaching and instilling quality in everyone's daily tasks and behaviors. The school system focuses on making all job procedures better all the time.

TQM may be a way for managers to do things. Ojo (2006) says that it is a management style that is centered on quality, clients, facts, teams, and seminars, and that it is meant to make people happy with the recognition of managerial decisions. Total quality management is a planned way to change how schools work (Deming, 2004). This lifestyle also offers a framework that can incorporate other positive developments in education, including collaboration, site-based management, supportive learning, and outcomes-based education.

TQM emphasizes teacher competence, creativity, dedication, teamwork, and effective communication, as well as the expected leadership qualities of educational management, to fully understand the capabilities of all staff within the educational organization (Okorie & Uche, 2004). Nicklin (2001) says that its claim to the education sector was strengthened by the fact that teaching people was seen as the same as making things and providing services in an economy. If educational administrators acknowledge that failures in education are detrimental and a liability to the nation, quality management may be perceived as an optimal approach for instigating reform within the educational framework (Gertsen, 2001). When discussing the foundations of excellent education, the following factors may be identified: teachers' commitment, effective leadership, adequate resources and access to current technology and appropriate course offerings, exceptional examination results, and parental involvement (Sallis, 2002).

In secondary schools, headmasters are the highest-ranking supervisors. They are in charge of running the school. Management is a process of getting things done via the resolution of others by planning, coordinating, encouraging, guiding and supervising their goings-on. Headmasters are supervisors who get things done with the support of deputy headmasters and teachers. When the headmasters are not there, deputy headmasters take over and run the school, directing the teachers and doing other management tasks. Teachers are utilized to help students reach their educational goals. It is not possible to implement TQM concepts in secondary schools while segregating deputy headmasters and teachers. This is the reason the researcher selected headmasters, deputy headmasters and teachers as study participants.

The literature indicates that numerous studies have been conducted on Total Quality Management (TQM) in business and higher education; however, the researcher has not located any efforts focused on the implementation of TQM in secondary school management. The researcher undertook a study on the "Application of Total Quality Management in Public Secondary Schools in District Gujrat" to address this deficiency.

Statement of the Problem

Over the years, public secondary schools in Pakistan have been struggling because they don't have enough resources for effective teaching and learning, they don't take care of the resources they do have, the headmasters are less committed, the staff doesn't work together, the communication is poor, the funding is insufficient, and the students don't do well on external exams. This has made many parents unhappy with public sector schooling. One potential solution to enhance this scenario is the implementation of Total Quality Management (TQM) principles in secondary school administration. The question is: how much do headmasters, deputy headmasters and teachers in district Gujrat's public secondary schools have to deal with TQM?

Purpose of the Study

The study aimed to investigate the implementation of Total Quality Management in the management of secondary schools in the Gujrat district. The following objectives explicitly guided the research:

1. To ascertain the degree of total commitment implemented in secondary school management within the Gujrat district.
2. To determine the degree of collaborative implementation in secondary school management within the district of Gujrat.

3. To find out how well secondary school management in the district of Gujrat is using effective communication.

Theoretical and Conceptual Framework and Significance of the Study

This research possesses both theoretical and practical importance. The theoretical importance of this research is based on "Statistical Quality Control" (SQC) theory. Walter Shewhart worked on this theory and promoted it in the 1990s. The approach emphasizes administrative success and posits that statistics will be employed to pinpoint areas for ongoing improvement in quality and output. The study's conclusions will be beneficial to the regime, educational administrators and organizers, researchers, and humanity as a whole.

Research Questions

1. How practical is absolute 'commitment' in managing secondary schools in the district of Gujrat?
2. How useful is 'teamwork' in managing secondary schools in the Gujrat district?
3. How well does 'effective communication' work in managing secondary schools in the Gujrat district?

Hypothesis Ho1:

The average scores of headmasters, deputy headmasters and teachers on the use of 'total quality management' in secondary school management in the district of Gujrat are not significantly different from each other.

Literature Review

It is an established reality that one of the most difficult duties of any organization, whether public or private, is to improve quality. Schools are not immune to this truth; in fact, they have also realized the need to pursue this goal in order to give all kids equal access to quality education. When discussing sources of quality education, the following might be enumerated: teachers' commitment, competent leadership, adequate resources, the integration of the latest technology and appropriate curriculum, outstanding examination results, and parental support (Sallis, 2002).

Total quality management is a journey for quality in all parts of an institution, all the time, and at all levels. Total quality management can be used in both business and school because both deal with the quality of people. Consequently, it is not unusual to consider the implementation of TQM in secondary school administration. TQM strategies in school

administration might help increase excellence in leadership and teachers' ability to meet goals and make the most of quality (Kezner, 2006). Moreover, for TQM to work well, schools need to get used to change, since change is what is most needed right now.

Onuka (2003) posited that total quality management (TQM) encompasses five fundamental components: unwavering dedication to quality; absolute commitment to the satisfaction of students, parents, and the community; relentless pursuit of continual quality enhancement; steadfast focus on effective communication; and collaborative cooperation. This study will focus on three specific elements: absolute commitment, teamwork, and effective communication.

Total commitment is highly crucial since both the leader and the dependents have to show total devotion to the goal and vision of the institution. When TQM is put into action, school leaders are expected to be facilitators and hold all staff members accountable for reaching a common goal. Maxwell (1998) stated that real leaders must maintain a detrimental attitude to effectuate a transformation in company culture. To create an active school management system, administrators are expected to be agents of change and reform to improve quality. He needs to be a leader who changes things.

When headmasters put TQM into action, they become committed to creating the vision, goals, mission, and values that guide them as leaders in their search for continued performance and growth. Commitment is what makes a real TQM implementation work. One reason why TQM efforts have failed is that managers do not make a promise to do their best (Brown, Hitchcock, and Willard, 1994). Mann and Kehoe (1994) asserted that the headmasters' endorsement of quality is an essential attribute in the enhancement of quality. In the implementation of TQM, all educational managers are dedicated to quality; they are not only actively engaged in the quality management and improvement process but also significantly motivate teachers' involvement in this process. They also learn about quality and how to do things, and they make sure that teachers have the right tools and materials for their training and education.

Total commitment in secondary school management improves both the teaching and administrative processes, makes the shareholders (students, instructors, and parents) happy, and encourages active staff engagement and good administrative results. No doubt, entire devotion is necessary for secondary school management to work well. The present study investigated the extent to which school headmasters enact total commitment in school management.

Teamwork is when small groups of people who depend on each other take responsibility for the results of their actions (Wineman & Serrato, 1998). A team is a form of organizational group that is made up of people

who depend on each other, have the same goals, and need to work together to reach those goals. To reach their aims, team members need to collaborative work.

Efficient organizational teams result in numerous essential outcomes, including enhanced productivity, optimized resource use, improved decision-making and problem-solving, superior products and services, and increased innovation and originality (Parker, 1990). There are a lot of good things that come from working in and with successful teams. Teamwork techniques assign collective responsibility for quality to the team, reducing the likelihood of individual blame and facilitating enhanced information sharing and collaboration among team members to enhance its attributes (Coyle-Shapiro, 1995) continuously.

When instructors work in groups, they can get a better and more complete picture of educational issues and situations by exchanging knowledge and thoughts. A constructive relationship that arises from effective teamwork can be a crucial element in leveraging the contributions of individual staff members (Murphy & Herberling, 2005). People think that good cooperation leads to success. Headmasters who promote collaboration include their staff in a complex team environment, encourage individuals to engage more deeply in their tasks, facilitate the generation of innovative ideas and suggestions, and foster a spirit of cooperation among colleagues.

Dimitriades (2000) found that how people see teams and teamwork is very important to excellent management in schools. It is expected that principals will encourage teachers to collaborate in order to promote continuous improvement and good communication. The present study determined the degree to which collaboration is relevant in secondary school administration.

Communication is the act of sending information from one person to another. It is also a process of exchanging and sharing ideas, thoughts, information, and opinions (Oboegbulem & Onwurah, 2011). In addition to the requirement for true communication and coordination in the management system and process, the main goals of education depend on communication between teachers and students and coordination between different staff members.

There will be good relationships between staff members, promise in work procedures, good relationships between people, and simple recognition of shared objectives and goals in any organization where communication is good. In the implementation of effective communication, headmasters are tasked with fostering and motivating positive interaction relationships among staff, namely between headmasters and teachers, students and headmasters, and instructors and students, to ensure ongoing enhancement in the quest for quality

education. The present study established the degree to which effective communication may be implemented in secondary school management.

One of the places where efficient communication between stakeholders is important is in schools. When there is a lack of efficient communication, there will be confusion, lawlessness, and overlapping functions, which can lead to misunderstandings and a loss of human and material resources (Oboegbulem & Onwurah, 2011). Research by Bue (2011) and Akhtar (2007) emphasized the necessity for the proper implementation of TQM concepts in educational institutions to facilitate ongoing quality improvement.

Methodology

The present study was quantitative in nature. The descriptive survey design was employed to examine the implementation of 'Total Quality Management' (TQM) in secondary school administration within the Gujrat district. The field survey was conducted to collect data to address the study objectives, focusing on the primary variable of 'Total Quality Management' and its indicators, namely total commitment, teamwork, and effective communication.

Population & Sample

The study's entire population consisted of 318 secondary schools, each with a headmaster, a deputy headmaster, and 1,639 teachers in the Gujrat area. One hundred respondents from 318 secondary schools in the Gujrat district were chosen to participate in the survey. In the first phase, a two-stage sampling procedure was employed to choose 25 schools. Then, in the second step, people were chosen from these schools. There were 25 headmasters, 25 deputy headmasters, and 50 teachers in this sample. Non-probability convenience sampling method was used to obtain the sample.

Instrumentation

The research data were gathered utilizing a self-constructed 23-item closed-ended questionnaire, as delineated in Table 1.

Table1
Brief Portrayal of Survey Questionnaire

Sr. No	Components	Scope	Items	Example
1	Total Commitment	Quality management, quality improvement, teachers' motivation, teachers' empowerment,	(1-8) for addressing question 1	Head of the school actively participates in quality management.

		principals' commitment.		
2	Team work	Head encourages team work, better relationship, use of collaborative techniques, sharing of ideas and knowledge.	(9-14) for addressing question 2	Principal uses effective collaborative techniques to promote teamwork
3	Effective Communication	Sharing of plans, quality goals, interpersonal communication, calling and acknowledgment for suggestions and use of information for continuous improvement.	(15-23) for addressing question 3	Principal communicates a detailed quality goals to teachers.

Instrument Validation

The researcher developed a research instrument under the supervision of a course supervisor. Seven 'subject matter experts' (SMEs) were selected to validate the tool, evaluating the grammatical considerations, clarity of items, and association between objectives, questions, and instrument items. They suggested changes to the items to make them more comprehensible, logical, and reasonable for the study's participants. The content validity index was premeditated using Lashes' formula and derived from a score of 0.92.

Procedure of Data Collection

The researcher conducted a survey with 100 respondents from 25 high schools in Gujrat, who provided their views on a five-point Likert Scale, taking all ethical considerations into account.

Data Analysis Procedure

The data was analyzed using SPSS version 24, with descriptive statistics like mean and standard deviation used. Factor-wise mean values and standard deviations were determined. Inferential statistics, analysis of variance (ANOVA) at a 0.05 significance level, were used to test the null hypothesis. Headmasters', deputy headmasters' and teachers' responses were compared using ANOVA, and multiple comparisons were conducted to investigate significant differences among different groups.

Results and Findings

To answer the three given research questions, the research results were presented in tabulation format to make them easier to understand and convincing for the readers.

Research Questions 1. How practical is absolute 'commitment' in managing secondary schools in the district of Gujrat?

Table 2
Mean scores and Standard Deviation of headmasters, deputy headmasters and teachers on the extent total commitment

Descriptive statistics on 'Total Commitment'			
	N	Mean	Std.
Headmasters	25	3.60	.547
Deputy headmasters	25	3.16	.618
Teachers	50	3.27	.363

Table 2 shows the results of descriptive statistics on level of total commitment. Headmasters' responses mean value is 5.60, deputy headmasters' responses mean value is 3.16 and teachers' responses mean value is 3.27. Headmasters' responses mean value is 5.60 i.e. more than other two groups. The standard deviation values of headmasters, deputy headmasters and teachers are .547, .618 and .363 respectively. Here deputy headmasters' standard deviation is (.547) more than the other two groups.

Research Question 2. How useful is 'teamwork' (being used) in managing secondary schools in the Gujrat district?

Table 3
Mean scores and Standard Deviation of headmasters, deputy headmasters and teachers on the extent team work

Descriptive statistics on 'Teamwork'			
	N	Mean	Std.
Headmasters	25	3.63	.534
Deputy headmasters	25	2.75	.516
Teachers	50	2.50	.296

Table 3 shows the results of descriptive statistics on level of team work. Headmasters' responses mean value is 3.63, deputy headmasters' responses mean value is 2.75 and teachers' responses mean value is 2.50. Headmasters' responses mean value is 3.63 i.e. more than the other two groups. The standard deviation values of headmasters, deputy headmasters and teachers are, .534, .516 and .296 respectively. Headmasters' standard deviation (.534) is more than the other two groups.

Research Question 3. How well does 'effective communication' work in

managing secondary schools in the Gujrat district?

Table 4
Mean scores and Standard Deviation of headmasters, deputy headmasters and teachers on the 'effective communication'

Descriptive statistics on 'Effective Communication'			
	N	Mean	Std.
Headmasters	25	3.31	.719
Deputy headmasters	25	3.00	.370
Teachers	50	2.28	.425

Table 4 shows the results of descriptive statistics on level of 'Effective Communication'. Headmasters' responses mean value is 3.31, deputy headmasters' responses mean value is 3.00 and teachers' responses mean value is 2.28. Headmasters' responses mean value is 3.31 i.e. more than the other two groups. The standard deviation values of headmasters, deputy headmasters and teachers' responses are .719, .370 and .425 respectively. Headmasters' standard deviation (.719) is more than the other two groups.

H0: The average scores of headmasters, deputy headmasters and teachers on the use of 'total quality management' in secondary school management in the district of Gujrat are not significantly different from each other.

Table 5
ANOVA of the mean scores of headmasters, deputy headmasters and teachers on the extent of application of TQM.

Analysis of variance (ANOVA)				
		Mean	F value	Sig.
Total commitment	Between groups	1.389	5.903	.004
	Within groups	.235		
Team work	Between groups	10.923	60.425	.000
	Within groups	.181		
Effective communication	Between groups	10.122	39.982	.000
	Within groups	.253		

Table 5 shows that there is a significant difference among the perception of headmasters, deputy headmasters and teachers about TQM indicators that are 'total commitment', 'team work' and 'effective communication'. On the indicator of total commitment, there is less difference between groups and within groups. F value is 5.903 at the probability level of .004. Whereas, the F values of team work and effective communication are 60.425 and 39.982 respectively at the probability value of .000 which is much less than .05 level of significance. Over all it can be said on the bases of above findings that there is a significant difference

among the perception of headmasters, deputy headmasters and teachers on the levels of TQM indicators that are total commitment, team work and effective communication. So, the null hypothesis is rejected.

Table 6

Multiple Comparisons

Variable	(I) participants	(J) participants	Mean Difference (I-J)	Std. Error	Sig.
Total commitment	Headmasters	Deputy headmasters	.445*	.137	.005
		teachers	.333*	.119	.017
Team Work	Headmasters	Deputy headmasters	.887*	.120	.000
		teachers	1.137*	.104	.000
	Deputy headmasters	teachers	.250*	.104	.048
Effective communication	Headmasters	Deputy headmasters	.307	.142	.084
		teachers	1.027*	.123	.000
	Deputy headmasters	teachers	.720*	.123	.000

Table 6 shows the multiple comparisons of participants' groups that are headmasters, deputy headmasters and teachers on TQM indicators that are 'total commitment', 'team work' and 'effective communication'. The above multiple comparison table values show that there is significant difference of insight among participants' groups on TQM indicators that are 'total commitment', 'team work' and 'effective communication'. The comparison of headmasters and deputy headmasters; headmasters and teachers' perceptions are significantly different on the level of commitment i.e. .445* .333*. The comparison of headmasters and deputy headmasters; headmasters and teachers' insights are significantly different on the level of team work i.e. .887*1.137* .250* The comparison of headmasters and deputy headmasters; headmasters and teachers' perceptions are significantly different on the level of effective communication i.e. 1.027*.720*.

Conclusions

This study was done to examine the implementation of 'total quality management'. After interpreting the results and findings, the researcher can conclude the following facts:

1. The mean value of 5.60 for the 'total commitment' indicator for headmasters is higher than deputy headmasters and teachers' groups. The standard deviation for deputy headmasters is (.547)

higher than that of the other two groups. However, headmasters in Gujrat's secondary schools are very committed to their jobs.

2. The mean value of headmasters' replies on the 'teamwork' indicator is 3.63, which is higher than the mean value of the other two groups. In this case, deputy headmasters' standard deviation is (.534) higher than that of the other two groups. However, headmasters in Gujrat's secondary schools are only engaging in teamwork to a limited extent.

3. The mean value of headmasters' comebacks to the indicator of 'effective communication' is 3.31, which is higher than the mean value for the other two categories. In this case, the standard deviation for deputy headmasters' is (.719) higher than that of the other two categories. However, headmasters in Gujrat's secondary schools are only using 'effective communication' to a limited extent.

4. Headmasters and deputy headmasters and teachers all have very different ideas about TQM indicators, such as 'total commitment', 'teamwork', and 'effective communication'. Consequently, the null hypothesis is dismissed or rejected.

Recommendations

After a concise summary of the results, findings, and conclusions, the researcher would like to suggest the following reflections and things to think about them.

1. The federal and provincial governments, through the Quaid-e Azam Academy of Educational Development (QAED), could hold conferences, workshops, sessions, and discussions for headmasters and deputy headmasters and teachers to talk about TQM features that will help to improve quality over time and make the whole educational system better. So, that everyone involved in this system would be happy and satisfied about its quality.

2. Headmasters may be wholly committed to all aspects of Total Quality Management to ensure that secondary school management and supervision are constantly improving.

3. For good school administration, headmasters may need to tell their staff members about the school's vision, mission, plans, and policies.

4. This study utilized a single research tool for data collection, namely a questionnaire. An interview and observation can also be conducted to gather more dependable and valid data. As the study may be expanded, its results can be applied in numerous situations.

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