



## DEVELOPMENT OF THE SCALE “TOTAL QUALITY MANAGEMENT OF SCHOOL TEACHERS” [TQMST]

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### Abstract

*Investigator says in the present study total quality management of school teachers scale has been development and standardized for the school teachers. This scale consists of 64 statements. This simple random sample technique was used for this study. The sample consists of 100 school teachers randomly selected from the Trichirappalli District. The analysis of “Cronbach’s Alpha” method was used to standardized the tool and finally 51 statements were selected for the final study.*

**Keywords:** *Ethics, Integrity, Leadership, Communication, and Commitment.*



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### Introduction:

The term total quality control was coined by A. V. Feigenbaum (1983), Japan, total quality control was later become total quality management. It is a corporate business management philosophy which recognizes that customer needs and business goals are inseparable. Total quality management is both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. The mission of total quality management is to exceed customer’s expectations; use best in class practices; eliminate defects; eliminate wastes and motivate all employees. The initiatives of total quality management are voice of the customer, bench marking, and control cycle time and employees involvement. The concepts of total quality management are the customer focus, make it a good place to works, and create a work culture for minimum utilization or resources and top management must be involved in all decisions.

The concept of quality has a very interesting origin. The idea was first developed in the 1940s by an American, W. Edward & Deming, who tested it on industrial process using statistical techniques. Although the concept was an American, it was post – war Japan that quickly learnt the lessons of quality control using the ideas of Edward Deming and his associates Joseph, Juran and B. Crosby. The Japanese initiated the quality revolution by introducing it in manufacturing and then covering other sectors. The United States of America (USA) which enjoyed the advantages of a monopoly market ignored the compulsions of quality because American business could sell what they produced without difficulty.

In the 1970s, with growing competition from Japanese products and loss of markets, the Americans started reflecting on the critical importance of quality. Total Quality Management (TQM) soon became a fact of life in American industry and service segments which continues up to this day. We in India cannot afford to ignore quality for 30 long years like the Americans and not lose our access to global markets. The philosophy of total quality management has its relevance in educational institutions too. Implementation of total quality management has been a major change in educational institutions for the past few years. The national policies on education 1968 and 1986 have a considerable on evolving and introducing innovative practices in the management of school education and particularly the educational school teachers.

The management is defined as the of planning, organizing, actuating and controlling an organization in order to achieve a co – ordination of the human and material resources essential in the effective and efficient attainment of objectives.

Mukhopadhyay (2005), defined it as, “the philosophy of total quality management is large scale, inspirational and all – embracing, but its practical implementation is small – scale, highly practical and incremental. Drastic intervention is not the means of change in total quality management”. Total quality management is incremental and success oriented; it builds success on success.

Frazier (1997), defined it as, “total quality management has also been termed as continuous quality improvement”. Continuous quality improvement is not merely a terminology; there are significant implications of the concept. Frazier suggested six – stage road – maps, namely prepare, assess, plan, deploy, sustain and break – through.

Navaratnam (1997), defined as offered a six – stage quality journey plan: (1) awareness and self – assessment, (2) training and team building, (3) quality planning, (4) implementation process, (5) comprehensive evaluation and (6) continuous improvement.

### **Definitions of Total Quality Management of School Teachers:**

Total quality management has been defined in various ways. Some of the important definitions of total quality management are given below:

All definitions described by Jayakumar & Raju (2005) is,

“It is process, a process of continually improving the product and services of the institution to better satisfy the needs and expectations of the students, employers, society and other significant stakeholders”.

Total quality management is the management approach of an organization, centered on quality, based on the participation of all its members and aiming at long – term success through customer satisfaction, and benefits to all members of the organization and to society. – ISO.

Total quality management is an integrated organizational approach in delighting customers (both internal and external) by meeting their expectations on a continuous basis through everyone involved with the organization working on continuous improvement in all products, services, and processes along with proper problem – solving methodology. – ISI.

Total quality management is the control of all transformation processes of an organization to best satisfy customers needs in the most economical manner. Leopald S. Vasin.

Total quality management is a people – focused management system that aims at continual increase in customer satisfaction at continually lower cost. Total quality management is a total system approach and an integral part of high – level strategy. It works horizontally across functions and departments, involving all employees, top to bottom, and exceeds backwards and forwards to include the supply chain and the customer chain. – Total Quality Forum of USA.

Total quality management is an approach to improving the effectiveness and flexibility of business as a whole. It is essentially a way of organizing and involving the whole organization, every department, every activity, every single at every level. – Oakland

### **Review of Related Literature:**

**Odhiambo (2010)** it is the responsibility of the principals to ensure that the curriculum is managed effectively through appropriate delegation to other teachers. Thus, a principal is not only responsible for articulating the school curriculum and objectives, but also delegating and coordinating curriculum implementation as well as monitoring the implementation and evaluation of the curriculum. The performance of curriculum

implementation roles requires that principals be well versed with skills, expertise and knowledge of not only management techniques but specifically of the curriculum.

**Manivannan & Premila (2009)** has conducted research on application of principals of total quality management in teacher education institutions. The findings focus on the strong and weak areas of various teacher education institutions according to the quality indicators. The study recommends further strengthening of quality indicators, which are already strong, and the revamping of weaker quality indicators. It is also recommended that institutions should adhere to the quality standards set by national international assessment and accreditation bodies. In conclusion, the global scenario expects skilled teachers to produce students with a versatile personality for which teacher education should be strengthened.

**Yeshodhara & Pour (2004)** studied the perception of secondary school teachers in Mysore city, India, regarding total quality management in education. It was an attempt to understand how these perceptions vary by demographic variable such as, gender & subject specialization (Arts and Sciences). Data were collected from 156 high school teachers in Mysore, India on the Bonstingle's conceptualization of Deming's 14 points total quality management in education (1992) and were analyzed using SPSS version 14.0. Analysis of variance (ANOVA) was employed to find out the significance of difference between variables subscales. Significant difference was found between male and female teachers in the perception of total quality management. Female teachers had higher mean score than male teachers. There is no significant difference between Arts and Sciences secondary school teachers in the perception of total quality management in education.

**Karunakaran (2002)** conducted a study on total quality culture in higher secondary schools in Dharmapuri district. The Study found that the total quality culture in higher secondary schools in Dharmapuri district, is 79.9% of the minimum possible score.

**Selladurai Raj (2000)** discussed Total Quality Management (TQM) interventions or activities must be guided by four change principles, namely work processes, variability, analysis, and continuous improvement. Product design and production processes must be improved; variance must be controlled to ensure high quality; data must be systematically collected and analyzed in a problem – solving cycle; and commitment made to continuous learning by the employees about their work.

#### **Pilot Study:**

This scale of 64 statements intended for the pilot study was administered to the sample of 100 school teachers [Primary school teachers – 34, High school teachers – 36, and Higher secondary school teachers – 30] working in the Trichirappalli District. Then their

responses have been scored carefully and the marks secured by all the school teachers have been arranged in the descending order from the highest score. Then, they were subjected to statements analysis.

**Construction of Total Quality Management of School Teachers Scale:**

The investigator constructed the total quality management of school teacher's scale. The scale used for the pilot study, consists of 64 items. All the 64 items were with five point scale (1) Always (2) Frequently (3) Some Times (4) Rare (5) Never type answers. The items of the scale consist of factors related to Ethics, Integrity, Leadership, Communication, and Commitment. In order to validate the tool the investigator conducted the pilot study was conducted in 10 schools. The total number of sample used for the pilot study was 100, [Primary school teachers – 34, High school teachers – 36, and Higher secondary school teachers – 30]. The investigator scored the test by giving (5 - 1) to the positive response and (1 – 5) to the negative response. The total number of marks secured by each sample was calculated by the investigator. Based on the total marks secured by the sample item total Cronbach's Alpha was used to identify the reliability of the tool. The items with 0.3 level value above items was selected for the final study.

Thus out of 64 items, 51 items were selected for the final study. The item Cronbach's Alpha and the selection of items for the final study are given in Table 1. The total quality management of school teachers scale used for the pilot study is given in Appendix B.

**Table – 1 Item Analysis for Total Quality Management of School Teachers Scale and Selection of Items for Final Study:**

Sl. No.	Item No.	Item Cronbach's Alpha	Total Cronbach's Alpha	Cronbach's Alpha if Item Deleted
1	1	0.029		Not Selected
2	2	0.615		Selected
3	3	0.465		Selected
4	4	0.492		Selected
5	5	0.456		Selected
6	6	0.510		Selected
7	7	0.440		Selected
8	8	0.558		Selected
9	9	0.422		Selected
10	10	0.480		Selected
11	11	0.612		Selected
12	12	0.605		Selected
13	13	0.508		Selected
14	14	0.640		Selected
15	15	0.374		Selected
16	16	0.149		Not Selected
17	17	0.559		Selected

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18	18	0.661	Selected
19	19	0.560	Selected
20	20	0.587	Selected
21	21	0.459	Selected
22	22	0.299	Not Selected
23	23	0.420	Selected
24	24	0.491	Selected
25	25	0.547	Selected
26	26	0.470	Selected
27	27	0.395	Selected
28	28	0.215	Not Selected
29	29	0.558	Selected
30	30	0.527	Selected
31	31	0.284	Not Selected
32	32	0.243	Not Selected
33	33	0.291	Not Selected
34	34	0.202	Not Selected
35	35	0.453	Selected
36	36	0.485	Selected
37	37	0.217	Not Selected
38	38	0.537	Selected
39	39	0.580	Selected
40	40	0.554	Selected
41	41	0.399	Selected
42	42	0.588	Selected
43	43	-0.542	Selected
44	44	0.503	Selected
45	45	0.387	Selected
46	46	0.339	Selected
47	47	0.560	Selected
48	48	0.478	Selected
49	49	0.533	Selected
50	50	0.546	Selected
51	51	0.609	Selected
52	52	0.600	Selected
53	53	0.605	Selected
54	54	0.428	Selected
55	55	0.487	Selected
56	56	0.363	Selected
57	57	0.556	Selected
58	58	0.368	Selected
59	59	0.457	Selected
60	60	0.262	Not Selected
61	61	0.143	Not Selected
62	62	0.106	Not Selected
63	63	0.128	Not Selected
64	64	0.622	Selected

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**Description of the Total Quality Management of School Teachers Scale:**

The total quality management of school teachers' scale was constructed and validated by the investigator. The scale contains 51 items. Each item was given five point scales (1) Always (2) Frequently (3) Some Times (4) Rare (5) Never type answers. The items of the scale consist of factors related to Ethics, Integrity, leadership, Communication, and Commitment. Responses were obtained on the answer booklets. There is no time limit but 30 minutes have been found sufficient for responding it. Instructions for administration are also given on the booklet.

**Dimensions of the Total Quality Management of School Teachers:**

Total quality management of school teacher's scale consists of five dimensions namely,

- Ethics
- Integrity
- Leadership
- Communication
- Commitment

The ethics has 14 items, the integrity has 11 items, the leadership has 15 items, communication has 11 items, and commitment has 13 items.

**Ethics:**

Ethics means teacher's to principles, morals, beliefs, moral values, moral code etc. Ethics is a science of character, habits of activity, or behaviour of human beings. It evaluates teachers' habits, character and voluntary determinations and discusses their property. The item number is 1 to 14 in the scale, which is a teachers related to ethics.

**Integrity:**

Teachers to honesty, reliability and moral action are embodied in integrity. Teachers exercise integrity through their profession commitments, responsibilities and actions. The item number is 15 to 25 in the scale, which is a teachers related to integrity.

**Leadership:**

Knowledge, skills and dispositions demonstrated by teachers the positively impact student learning by influencing adults, formally and informally, beyond individual classrooms. The item number is 26 to 40 in the scale, which is a teachers related to leadership.



**Communication:**

The art of communication involves listening and speaking as well as reading and writing. They make excellent teachers because they are able to transmit knowledge, skills and values at the same time they communicate their caring for the students entrusted to their care. They help motivate students to learn. The item number is 41 to 51 in the scale, which is a teachers related to communication.

**Commitment:**

The shapes of professional commitment and, accordingly, of organizational commitment represent behavioral predictors of work achievements, absenteeism, fluctuation, but also of the professional satisfaction. The item number is 52 to 64 in the scale, which is a teachers related to commitment.

**Table – 2 Serial Number of Items under each Dimensions of the Total Quality**

**Management of School Teachers:**

<b>Sl. No.</b>	<b>Dimension</b>	<b>Serial Number of Items</b>	<b>Total no of Items</b>
1	Ethics	1,2,3,4,5,6,7,8,9,10,11,12,13,14	14
2	Integrity	15,16,17,18,19,20,21,22,23,24,25	11
3	Leadership	26,27,28,29,30,31,32,33,34,35,36,37,38,39,40	15
4	Communication	41,42,43,44,45,46,47,48,49,50,51	11
5	Commitment	52,53,54,55,56,57,58,59,60,61,62,63,64	13

**Reliability:**

The investigator calculated the test – retest reliability by calculating the Cronbach’s Alpha of scores from two administration of the same test after a gap of one month. The reliability value was 0.868.

**Validity:**

The face validity was established by circulating the roughly drafted tool and carrying out all the suggestions given by the teachers working in the Department of Education.

**Scoring Procedure:**

The tool for the present is in English and Tamil version consisting of 51 items. Based on the item analysis 51 items were selected for the final study for 64 items used in the pilot



study Table 1. The tool for final study consists of 51 items 43 are possible and 8 items are negative statements. The scale contains 51 items. Each item provides alternative is assigned a weight age from 5 (never) to 1 (always) for favorable items. In the case of unfavorable items the range of weight age is reversed i.e. from 1 (always) to 5 (never). The total quality management of school teachers scale score of the subject is the sum total of item scores of all the 5 sub scale. The range of scores is from 1 to 255 with the higher score indicating the high total quality management of school teachers. There is no time limit to complete the questionnaire the nature of items and scoring pattern of the total quality management of school teachers was been presented below. The total quality management of school teachers scale used for the final study is given in appendix – C.

**Table – 3 Nature of Items and Scoring Pattern of Total Quality Management of School Teachers:**

Sl. No.	Nature of Items	Item Numbers	N	R	S	F	A
1	Positive Statements	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,21,22,23,25,27,28,29,30,31,32,33,35,38,39,40,41,42,43,44,45,46,48,49,50	5	4	3	2	1
2	Negative Statements	20,24,26,34,36,37,47,51	1	2	3	4	5

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