

A Study of Total Quality Management of D.Ed.Colleges under Dharwad Diet

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Abstract

TQM is a strategy and process to manage an institution as an integrated system of principles, methods and best practices that provide a framework for the institution to strive for excellence in everything it does. Managing quality in higher education has proved to be a challenging task. The changes in the social and cultural framework, and even more in the economic order, with associated trends of liberalization and globalization and the corresponding domestic and global competitive environment have resulted in a great deal of disparity between what is actually taught and what is actually required at the workplace. Quality of education is becoming very important where products of the system, that is, the enlightened students themselves can play an ever-increasing major role for the development of not only the self but also the world around them. This changing trend, in the past few decades, has had an impact on the educational system that has now begun to move from a focus on quantitative expansion to one with a focus on quality.

KEYWORDS: Quality, Measuring and Managing Quality, Higher Education and Total Quality Management.

Introduction

Quality has been the goal of an eternal through the corridors of human history. It has been the driving force for all human endeavors. Quality is the inspiration for transcendence from the mundane to the higher realms of life. It is the source of craving behind the unfolding human civilization through ages immemorial. Yet it has successfully eluded the dragnet of definitions proving the inadequacy of human intelligence. Quality stares at you. In today's world many new and innovative things, systems, services etc. are emerging, while selecting required systems and services many questions arise, like which system is to be selected and why? Which system is good? Which system is easy to apply? Why we need that particular system etc. Then we look the quality of the system. So which establishment to work. People give important to quality of the work place. As every system is adopting "quality" factor in the management, education fielded also adopted the system of "Total Quality Management".

Measuring and Managing Quality in Higher Education

Managing quality in higher education has proved to be a challenging task. The literature suggests that there are two main reasons for this. first, 'quality' has different meanings for different stakeholders. Within higher education there are both internal and

external stakeholders who are likely to have disparate or even contradictory definitions of quality.

Total Quality Management

TQM is a strategy and process to manage an institution as an integrated system of principles, methods and best practices that provide a framework for the institution to strive for excellence in everything it does. It must be done under the leadership and commitment of top management, supported by education and training, open communication, change management, regular self-assessment, support structures, systems and resources. This will subsequently empower employees through investing in them in order to improve their performance as teams, able to deliver continuously improved quality products and services. Through this approach a corporate TQM culture will be established, to satisfy and exceed agreed internal and external customer requirements at the lowest overall cost (Kline, 1992:7).

Total Quality Management in higher Education

The changes in the social and cultural framework, and even more in the economic order, with associated trends of liberalization and globalization and the corresponding domestic and global competitive environment have resulted in a great deal of disparity between what is actually taught and what is actually required at the workplace. In keeping with the socio-economic and cultural transformation that has placed newer demands upon the educational system and higher education in particular, there has been a major shift with emphasis on quality. Quality of education is becoming very important where products of the system, that is, the enlightened students themselves can play an ever-increasing major role for the development of not only the self but also the world around them.

This changing trend, in the past few decades, has had an impact on the educational system, that has now begun to move from a focus on quantitative expansion to one with a focus on quality. The issue that is raised is regarding "What" and "Why" of the very concept of Quality or Total Quality Management as applied to Higher Education.

Statement of the Problem

The problem undertaken for the investigation can be restated precisely as:
"A Study of Total Quality management of D.Ed. Colleges Under Dharwad DIET".

Review of Related literature

Wearn (1995) undertook A TQM Model for Higher Education and Training.

In contemporary management in the 1990s, a strategy utilized by an increasing number of Organizations for Effective Change and Sustained Competitive Advantage is Total Quality Management (TQM). There have been many established applications in manufacturing over the last two decades and more recently, in services and the public sector. However, despite expectations that higher educational institutions should lead the field, TQM has been insignificant until recently. Aims to determine the advantages of TQM and how TQM can be effectively and efficiently applied in higher education

institutions. Develops a TQM excellence (HETQMEX) model for higher education and training based on fundamental concepts of service quality: 5-S, marketing and education quality control, quality control circles, ISO 9000 and total preventive maintenance. Acknowledges the diversity of customers that TQM must satisfy and highlights some of the problems encountered in implementing the model, based on well-founded research and the experience of the authors.

The Government of Karnataka had commissioned sub-sector studies in education, teacher education being one of them. This report has pointed out the following inadequacies (Jayalakshmi, 2002)

- Duration of Teacher Education at primary level is insufficient to develop certain skills and content knowledge among trainees.
- The standard of both lecturers of both lecturers and students in the pre-requisite content knowledge is very poor.
- Teacher education curriculum is loaded with theory as well as a number of assignments.
- Teacher Educators of all TTIs not involved in the special programmes like DPEP, IED and are deprived of good experiences there from.
- No organized academic supervision of the TTIs especially unaided colleges has resulted in poor quality.

A comprehensive Evaluation of the Centrally Sponsored Scheme on restructuring and recognizing of Teacher Education (NCERT, 2009) report that most CTEs and IASEs have not adequately fulfilled their added responsibility in the areas of capacity building of teacher educators; developing learning resources and research and innovation.

As to the DIETs, only two of their seven wings: Pre-service Teacher Education and In-service Field Interaction are functional.

Also, the three institutions are functioning independently of each other although the scheme had envisaged a synergy among DIETs, CTEs and IASEs. This report again points out that teacher education programmes are ineffective in making teachers and teacher educators sensitive to emergent context specific requirements and techno-pedagogical skills. The report cites a lack of clear and comprehensive policy as one of the reasons for poor capacity building of teacher educators.

The situation in Karnataka is no different. There is very little literature pertaining exclusively to pre-service elementary teacher education.

A Comprehensive Study of the Progress of Education in Karnataka (Rao, 2009) has identified lacunae in the D.Ed curriculum. He points out that the D.Ed curriculum is a replica of the B.Ed curriculum. He also feels Western philosophies and Sociological theories are given more prominence at the expense of Indian experiments. He faults the curriculum for "totally dispensing with, or at best, condensing and limiting to one paper" the various philosophies and theories of education. Instead the D.Ed curriculum should include important reports; contributions of NGOs; comparison between Karnataka and

other states; and the various intervention programmes taken up in Karnataka. The author also points out that teacher educator are not given in-service training programmes. He notes that D.Ed college lecturers have B.Ed/M.Ed qualification with experience in secondary education. This has led to a situation where teachers' needs at the primary level are not catered to in D.Ed.

Finally, the author brings to fore the lack of sufficient resource books and materials for both students and educators.

Objectives of the Study

1. To study the significant difference between teachers of D.Ed colleges (male and female) with respect to Total Quality Management and its dimensions (i.e. Principal as a leader, teacher quality, linkage, student, co-curricular activities, teaching, office management, relationships, material resources, examination and job satisfaction.)
2. To study the significant difference between type of management (Government, aided and unaided) D.Ed colleges with respect to Total Quality Management and its dimensions.

Hypotheses

1. **Hypothesis:** There is no significant difference between teachers of D.Ed colleges (male and female) with respect to Total Quality Management and its dimensions (i.e. Principal as a leader, teacher quality, linkage, student, co-curricular activities, teaching, office management, relationships, material resources, examination and job satisfaction.)
2. **Hypothesis:** There is no significant difference between type of management (Government, aided and unaided) D.Ed colleges with respect to Total Quality Management and its dimensions.

VARIABLE :

1. **Total Quality management** has eleven dimensions.

Moderator Variable: Gender (male and female)

Type of Management (Government, Aided and Unaided)

Method of the Study

Survey method is found to be more suitable for this type of research work. Therefore the researcher used survey method for the present study.

Population and Sample

To make the study worthwhile the representative random sample of the total population was taken. The total population of the study consists of 30 D.Ed colleges under Dharwad DIET.

The sample of the study was selected 16 D.Ed colleges under Dharwad DIET. In the sample 113 teachers of D.Ed colleges were selected through random sampling technique.

Tools Used

Tool was used for data collection for the study. The details of the tools presented here:

- Mukhopadhyay's Institutional Profile Questionnaire (MIPQ)– by M.Mukhopadhyay (2006)

Data Collection

The investigator personally collected the data form 113 teachers of D.Ed colleges under Dharwad DIET. Teacher of D.Ed colleges were personally administered the tools. Clear-cut instructions were given to fill up the responses to the items in the tools. The filled in proformas and tool was collected. The collected data was systematically pooled for analyses.

Data Analyses

Differential statistics:

In this section, the independent variables namely gender (male and female) and types of managements (government, aided, unaided) of D.Ed colleges with respect to quality management and its dimensions (i.e. principal as a leader, teacher quality, linkage, students, co-curricular activities, teaching, office management, relationships, material resources, examination and job satisfaction) of the scores were compared by applying the unpaired-test and one way ANOVA followed by Scheffe's multiple post hoc procedures and results are presented in the following tables.

Hypothesis: There is no significant difference between teachers of D. Ed colleges with respect to quality management scores and its dimensions (i.e. principal as a leader, teacher quality, linkage, students, co-curricular activities, teaching, office management, relationships, material resources, examination and job satisfaction).

To achieve this hypothesis, the unpaired t-test was applied and the results are presented in the following table.

Table: Results of t-test Between Teachers of D. Ed Colleges with Respect to Quality Management and its Dimensions

Variable	Gender	Mean	SD	t-value	p-value	Signi.
Quality management	Male	20.5000	22.0818	3.4169	<0.05	S
	Female	6.4203	20.8879			

Principal as a leader	Male	0.6818	4.3657	2.5814	<0.05	S
	Female	-1.4493	4.2237			
Teacher quality	Male	1.9773	3.6503	0.1158	>0.05	NS
	Female	1.8986	3.4434			
Linkage	Male	3.9545	3.6342	2.8916	<0.05	S
	Female	1.3478	5.2239			
Students	Male	-1.1591	3.6975	1.4842	>0.05	NS
	Female	-2.1884	3.5284			
Co-curricular activities	Male	1.0227	3.3584	1.2415	>0.05	NS
	Female	0.2899	2.8548			
Teaching	Male	1.2045	3.7885	2.2248	<0.05	S
	Female	-0.3043	3.3312			
Office management	Male	4.7045	15.3450	1.8836	>0.05	NS
	Female	1.0000	4.5536			
Relationships	Male	2.0455	4.5950	2.3196	<0.05	S
	Female	0.2609	3.5507			
Material resources	Male	0.3409	4.3130	1.0777	>0.05	NS
	Female	-0.5072	3.9244			
Examination	Male	4.5909	4.0995	1.2816	>0.05	NS
	Female	3.4783	4.7360			
Job satisfaction	Male	3.4091	3.4053	1.1335	>0.05	NS
	Female	2.5942	3.9157			

From the results of the above table, it can be seen that,

1. The male and female teachers of D.Ed colleges differ significantly with respect to their quality management ($t=3.4169$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male teachers of D.Ed colleges have higher quality management as compared to female teachers.
2. The male and female teachers of D.Ed colleges differ significantly with respect to quality management towards principal as a leader ($t=2.5814$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is

- accepted. It means that, the male teachers of D.Ed colleges have higher quality management towards principal as a leader as compared to female teachers.
3. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards teacher quality scores ($t=0.1158$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of D.Ed colleges have similar quality management towards teacher quality scores.
 4. The male and female teachers of D.Ed colleges differ significantly with respect to quality management towards linkage ($t=2.8916$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male teachers of D.Ed colleges have higher quality management towards linkage as compared to female teachers.
 5. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards students scores ($t=1.4842$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of D.Ed colleges have similar quality management towards student scores.
 6. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards co-curricular activities scores ($t=1.2415$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of D.Ed colleges have similar quality management towards co-curricular activities scores.
 7. The male and female teachers of D.Ed colleges differ significantly with respect to quality management towards teaching ($t=2.2248$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male teachers of D.Ed colleges have higher quality management towards teaching as compared to female teachers.
 8. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards office management scores ($t=1.8836$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of D.Ed colleges have similar quality management towards office management scores.
 9. The male and female teachers of D.Ed colleges differ significantly with respect to quality management towards relationships ($t=2.3196$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the male teachers of D.Ed colleges have higher quality management towards relationships as compared to female teachers.
 10. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards material resources scores ($t=1.0777$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of D.Ed colleges have similar quality management towards material resources scores.
 11. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards examination scores ($t=1.2816$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is

- rejected. It means that, the male and female teachers of D.Ed colleges have similar e quality management towards examination scores.
12. The male and female teachers of D.Ed colleges do not differ significantly with respect to quality management towards job satisfaction scores ($t=1.1335$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of D.Ed colleges have similar quality management towards job satisfaction scores.

Hypothesis: There is no significant difference between government, aided and unaided D. Ed college teachers with respect to quality management scores and its dimensions (i.e. principal as a leader, teacher quality, linkage, students, co-curricular activities, teaching, office management, relationships, material resources, examination and job satisfaction).

To achieve this hypothesis, the one way ANOVA-test was applied and the results are presented in the following table.

Table: Results of ANOVA -test Between Government, Aided and Unaided D. Ed College Teachers with Respect to Quality Management and its Dimensions Scores

Variable	Source of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	P-value	Signi.
Quality management	Between managements	2	3793.43	1896.714	3.9993	<0.05	S
	Within managements	110	52168.50	474.259			
	Total	112	55961.93				
Principal as a leader	Between managements	2	201.12	100.562	5.6626	<0.05	S
	Within managements	110	1953.51	17.759			
	Total	112	2154.64				
Teacher quality	Between managements	2	143.31	71.657	6.3766	<0.05	S
	Within managements	110	1236.12	11.237			
	Total	112	1379.43				
Linkage	Between managements	2	253.39	126.693	5.9234	<0.05	S
	Within managements	110	2352.74	21.389			

	Total	112	2606.12				
Students	Between managements	2	139.46	69.732	5.7959	<0.05	S
	Within managements	110	1323.44	12.031			
	Total	112	1462.90				
Co-curricular activities	Between managements	2	17.20	8.598	0.9126	>0.05	NS
	Within managements	110	1036.41	9.422			
	Total	112	1053.61				
Teaching	Between managements	2	101.48	50.739	4.1919	<0.05	S
	Within managements	110	1331.46	12.104			
	Total	112	1432.94				
Office management	Between managements	2	139.36	69.681	0.6515	>0.05	NS
	Within managements	110	11764.51	106.950			
	Total	112	11903.88				
Relationships	Between managements	2	2.43	1.214	0.0722	>0.05	NS
	Within managements	110	1848.35	16.803			
	Total	112	1850.78				
Material resources	Between managements	2	124.82	62.410	3.9417	<0.05	S
	Within managements	110	1741.64	15.833			
	Total	112	1866.46				
Examination	Between managements	2	93.74	46.868	2.3569	>0.05	NS
	Within	110	2187.38	19.885			

	managements						
	Total	112	2281.12				
Job satisfaction	Between managements	2	75.90	37.952	2.8147	>0.05	NS
	Within managements	110	1483.21	13.484			
	Total	112	1559.12				

From the results of the above table, it can be seen that,

1. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to their quality management (F=3.9993, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management .
2. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to quality management towards principal as a leader (F=5.6626, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management towards principal as a leader .
3. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to quality management towards teacher quality (F=6.3766, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management towards teacher quality .
4. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to quality management towards linkage (F=5.9234, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management towards linkage.
5. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to quality management towards students (F=5.7959, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management towards students .
6. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges do not differ significantly with respect to quality management towards co-curricular activities scores (F=0.9126, $p>0.05$) at 5% level of significance. Hence,

- the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have similar quality management towards co-curricular activities scores.
7. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to quality management towards teaching ($F=4.1919$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management towards teaching .
 8. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges do not differ significantly with respect to quality management towards office management scores ($F=0.6515$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have similar quality management towards office management scores.
 9. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges do not differ significantly with respect to quality management towards relationships scores ($F=0.0722$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have similar quality management towards relationships scores.
 10. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges differ significantly with respect to quality management towards material resources ($F=3.9417$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have different quality management towards material resources.
 11. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges do not differ significantly with respect to quality management towards examination scores ($F=2.3569$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have similar quality management towards examination scores.
 12. The teachers belonging to different managements (government, aided and unaided) D.Ed colleges do not differ significantly with respect to quality management towards job satisfaction scores ($F=2.8147$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the teachers belonging to different managements (government, aided and unaided) D.Ed colleges have similar quality management towards job satisfaction scores.

If F is significant, to know the pair wise comparison of government, aided and unaided colleges with respect to quality management and its dimensions scores by applying the Scheffe's multiple post hoc procedures

Table: Pair wise Comparison of Government, Aided and Unaided D. Ed College Teachers with Respect to Quality Management and its Dimensions Scores by Scheffe's Multiple Post Hoc Procedures

Variables	Managements	Government	Aided	Unaided
Quality management	Mean	22.1900	4.6667	11.9190
	Government	-		
	Aided	0.0211*	-	
	Unaided	0.1795	0.3296	-
Principal as a leader	Mean	1.8571	-2.1670	-0.7097
	Government	-		
	Aided	0.0047*	-	
	Unaided	0.0587	0.3026	-
Teacher quality	Mean	4.2857	1.4333	1.3710
	Government	-		
	Aided	0.0136*	-	
	Unaided	0.0036*	0.9965	-
Linkage	Mean	-0.4762	2.0000	3.5000
	Government	-		
	Aided	0.1750	-	
	Unaided	0.0040*	0.3488	-
Students	Mean	0.4762	-1.9000	-2.5000
	Government	-		
	Aided	0.0593	-	
	Unaided	0.0041*	0.7396	-
Teaching	Mean	2.1905	-0.5667	0.0484
	Government	-		
	Aided	0.0236*	-	
	Unaided	0.0553	0.7298	-
Material resources	Mean	2.0000	-0.4333	-0.7903
	Government	-		
	Aided	0.1041	-	
	Unaided	0.0240*	0.9219	-

* $p < 0.05$

From the results of the above table, it can be seen that,

- The teachers belonging to different government and aided D.Ed colleges differ significantly with respect to their quality management at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges are higher on perception of quality management as compared to aided colleges.
- The teachers belonging to different government and aided D.Ed colleges differ significantly with respect to quality management towards principal as a leader at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges are higher on perception of quality management towards principal as a leader as compared to aided colleges.
- The teachers belonging to different government and aided D.Ed colleges differ significantly with respect to quality management towards teacher quality at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges have higher on perception of quality management towards teacher quality as compared to aided colleges.
- The teachers belonging to different government and unaided D.Ed colleges differ significantly with respect to quality management towards teacher quality at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges have higher quality management towards teacher quality as compared to unaided colleges.
- The teachers belonging to different government and unaided D.Ed colleges differ significantly with respect to quality management towards linkage at 5% level of significance. It means that, the teachers belonging to unaided D.Ed colleges are higher on perception of quality management towards linkage as compared to government colleges.
- The teachers belonging to different government and unaided D.Ed colleges differ significantly with respect to quality management towards students at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges have higher on perception of quality management towards students as compared to unaided colleges.
- The teachers belonging to different government and aided D.Ed colleges differ significantly with respect to quality management towards teaching at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges have higher on perception of quality management towards teaching as compared to aided colleges.
- The teachers belonging to different government and unaided D.Ed colleges differ significantly with respect to quality management towards material resources at 5% level of significance. It means that, the teachers belonging to government D.Ed colleges have higher on perception of quality management towards material resources as compared to unaided colleges.

Findings

1. The male teachers of D.Ed colleges have higher quality management as compared to female teachers.
2. The male teachers of D.Ed colleges have higher quality management towards principal as a leader as compared to female teachers.
3. The male teachers of D.Ed colleges have higher quality management towards teaching as compared to female teachers.
4. The male and female teachers of D.Ed colleges have similar quality management towards office management.
5. The male teachers of D.Ed colleges have higher quality management towards relationships as compared to female teachers.
6. The teachers belonging to government D.Ed colleges are higher on quality management towards principal as a leader as compared to aided colleges.
7. The teachers belonging to government D.Ed colleges are higher on quality management towards teacher quality as compared to aided colleges.
8. The teachers belonging to unaided D.Ed colleges are higher on quality management towards linkage as compared to government colleges.
9. The teachers belonging to government D.Ed colleges are higher on quality management towards material resources as compared to unaided colleges.

Conclusion

The meaning of TQM and the great benefits that can be attained through its implementation. Yet there are still many educational institutions that attempt a variety of quality improvement efforts and find that they have not achieved any or most of the expected outcomes. When we consider total quality management as an applied concept to different fields of investigation or application, especially in educational field, it depends on all aspects of educational management. So the educational management involves all the areas of investigation of any industry. In industry we can see importance given to systematic Planning, Performance orientation, and flexible changes with systematic way of planning etc. so the total quality management in education also plays the same tasks of investigation.

Implications of the study

On the basis of the findings of the study the following implications were made.

- The main concept of the study is throwing light on total quality management of colleges of education. It is important because the total quality management provides better human resource to the country.
- The study provides opportunity for educational planners to plan systematically by using research data on total quality management of colleges of education.
- Total quality management and present study provide business managerial

approach to educational field. Some of those aspects are as below

- Systematic planning.
- Performance orientation.
- Flexible changes with systematic way of planning.
- Pragmatic way of thinking in education.
- Better utilization of available resources and nourishing them for further use etc.
- Total quality management and present study on total quality management provides colleges of education future oriented thinking in education planning and implementation of these plans with respect to society's needs.

- The study on total quality management gives guidelines for educational management to fulfill the needs of colleges of education with respect to teachers, students and overall college perspective.

- Total quality management concept is applied to educational field from industry perspective. While applying for different kinds of management, it provides advanced problems as well as advanced solutions to them.

- Total quality management of colleges of education study caters to perceive the whole education system as whole thing.

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