CHAPTER V
SUMMARY AND CONCLUSION

5.0. INTRODUCTION

Quality in and of education has always been a priority area and a prominent agenda of various committees and commissions in education. Consistent efforts have been made in the past to improve the quality of primary education. The National Policy on Education (NPE, 1986) and Programme of Action (POA, 1992) have recommended a number of measures for improvement in the quality of education through reforms in content and processes of classroom teaching, improvement in school facilities, provision of additional teachers, standardizing levels of learning at primary stage and so on.

For improving the quality in education, a large number of national and state level programmes were launched. Among them, some centrally sponsored interventions were: Operation Blackboard (OB), Minimum Levels of Learning (MLL), Restructuring and Reorganization of Teacher Education, Programme for Mass Orientation of School Teachers (PMOST), Special Orientation Programme for Primary Teachers (SOPT), State wide Massive and Rigorous Training for Primary Teachers (SMART-PT), Joyful Learning, etc, which aimed to improve the quality of primary education in schools. District Primary Education Programme (DPEP) is also one such major initiatives in this direction. The scheme of 'Sarva Shiksha Abhiyan' (SSA) was approved by the Central Cabinet on the 16th of November 2000. SSA has been functioning in the field of elementary education to improve the enrolment of children and to increase the quality in education. Although there has been substantial
improvement in access, enrolment, retention and reduced gender disparities at various
levels, the qualitative improvement in education in general and learner’s achievement
in particular has not recorded as much progress as was desired.

5.1. PRIMARY EDUCATION

Primary education is shaped according to the prevailing social and
philosophical milieu and is regarded as the foundation for the entire superstructure of
children’s moral, spiritual, intellectual and physical development. The basic
objectives of primary education are: (i) All boys and girls in India should grow up as
citizens of a new social order, based on co-operative work, (ii) Every individual
should have full opportunity for the balanced and harmonious development of all his
faculties, (iii) Every individual should acquire capacity for self reliance in aspects of
cleanliness, health and culture and (iv) Every individual should understand social and
moral implications of life.

Primary schools in India face a wide chain of challenges such as internal
management, financial management, and faculty deployment of teachers, back of
authority, threat to functional autonomy, and external management such as inadequate
monitoring of teachers’ performance, poor support system, academic management,
pupil teacher ratio, quality teaching, community involvement, infrastructure facility
and direction in management. The micro problems of primary teachers are language
skills, subject knowledge, child-centered innovative teaching-learning methodology,
use and development of teaching-learning methodology, use and development of
teaching-learning materials and their macro problems are low motivational level, back
of resources and high performance expectation. There are number of problems in
primary schools, but the Total Quality Management (TQM) and Educational
Technology (ET) will help to solve them.
5.2. QUALITY OF EDUCATION

Quality is contextual. It is very difficult to give a comprehensive definition of quality. Quality is not an act, it is a habit. It generally signifies the degree of excellence. It is the totality of features and characteristics of the product, process or service that bear on its ability to satisfy stated or implied needs. In the educational context, quality is seen as a complex issue as education is concerned with human being. When we describe human being as product, the description cannot encapsulate all the characteristics of learners in the same way, as one would describe the quality of commodities. Hence, the definition of quality varies depending upon the individual, institution, and educational situation, social and national context. Some quality thinkers view quality as 'fitness for use', or 'conformance to requirement'. Thus quality can be defined as the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs (Bureau of Indian Standards, 1988). The discussion on quality in education system has been well led by Astin (1993) when he pointed out that 'you-cannot-define-it-but-you-know-it-when-you-see-it'. He argued that there are four views of excellence as reputation, excellence resources, excellence as content and excellence as outcome.

Deshmukh (2002), is of the view that quality of an institution depends on the commitment and objectives identified by an institution namely: (i) Ensuring that the institute's goals are clearly defined (ii) Rethinking every task, (iii) Replacing the tendency of blaming other people for failure, (iv) A commitment to continuous monitoring of performance evaluation of progress, (V) Satisfying the internal and external customers/stakeholders needs.

Quality in education means specifying worthwhile learning goals and enabling students to achieve them. This process of enabling students to achieve their learning
goals involves distinguishing between different kinds of learning and different kinds of learners.

There is no simple definition for quality of education. It has been defined differently by different philosophers, practitioners and educationists. Quality education must ensure the child’s all round development i.e., physical, mental, social, emotional and spiritual aspects of his/her personality, and should enable him/her to best use his/her potential. Education is a life learning process. There is need to evolve strategies that could improve all aspects of primary education simultaneously i.e., decentralized contextual planning, need-based training of teachers, educational technology, strengthening external supervision and total quality management practices.

5.3. TOTAL QUALITY MANAGEMENT

Quality concept is not a new one. Historically during the fifth century BC Egyptians demonstrated a commitment to quality in the construction of their pyramids. During the early days of manufacturing, an operator's work was inspected and a decision made whether to accept or reject it. The focus was just to accept or reject the products based on the specification. No effort was made on defect prevention. In the 1920's statistical theory began to be applied effectively to quality control, and in 1924, Shewhart made the first attempt of a modern control chart. His work was later developed by Deming and the early work of Shewhart, Deming, Dodge and Romig constitutes much of what today comprises the theory of Statistical Process Control (SPC). In 1969, Feigenbaum presented a paper in a conference and the term 'total quality' was used for the first time, and referred to wider issues such as planning, organisation and management responsibility. Company wide quality management was common in Japanese companies by the late 1970's. Total Quality
Management (TQM) came into existence in 1980 through the western world. TQM is now part of a much wider concept that addresses overall organisational performance and recognises the importance of quality processes. As we move into the 21\textsuperscript{st} century, TQM has developed in many countries into holistic frameworks, aimed at helping organisations achieve excellent performance, particularly in customer delight and business results.

Total Quality Management is an integrated organizational approach in delighting both external and internal customers by meeting their expectations on a continuous basis through every one involved with the organization working on continuous improvement in all products, services and procedures along with proper problem solving methodology. The central focus in Total Quality Management is customer satisfaction, indicator of quality being the customer response to a product. With this central focus on customer satisfaction, Total Quality Management sets out to develop an organizational philosophy and management strategies to achieve the philosophy.

TQM is a practical but strategic approach to run an organization which focuses on the needs of its customers and clients. It aims to reject any outcome other than excellence. TQM is not a set of slogans, but a deliberate and systematic approach to achieve appropriate levels of quality in a consistent fashion which meet or exceed the needs and wants of customers. It can be thought of as a philosophy of never-ending improvement only achievable by and through people.

Murgatroyd and Morgan (1993) define "TQM as ... the systematic management of an organisation, customer-supplier relationships in such a way to ensure sustainable steep-slope improvement in quality performance". Oakland (1993)
conceptualizes TQM as a “Management process which improve the effectiveness, flexibility and competitiveness of a business”.

Recent literature on quality reveals a number of quality concepts and quality deployment programmes. For example, three basic processes of quality management are offered by Juran (Juran & Gryna, 1970; Juran, 1986): quality planning, quality improvement and quality control. Deming (1981, 1982, and 1986) has recommended 14 principles for the successful and effective management of quality in an organisation. Along the same lines, Crosby (1979) offers a 14-step zero-defect quality improvement programme for an organization.

5.4. EDUCATIONAL TECHNOLOGY

Educational Technology Aids to improve the process of human learning. “Educational Technology is a complex integrated process involving people, procedures, devising, implementing, evaluating and managing solutions to those problems involved in all aspects of human learning”. In other words, Educational Technology is the technology that prescribes the design of instructional materials and then structures learning interactions for maximum benefit.

The instructor has to play a pivotal role for the success of the Educational Technology. The teaching aids either modern or traditional only supplement the efforts of the instructor to enhance the learning process. They cannot be a substitute for him. The technologies assist him to do his work in an efficient manner and to achieve the educational objectives.

Technology is the process of creatively applying certain known and tested principles to a given practical purpose (or problems). Thus Technology is application of scientific methods to practical situation (Romiszowski, 1981). Just as other fields of technology, Educational Technology also solves educational problems in practical
situation. Educational Technology improves teaching-learning process. It helps the teachers to classify, establish, and correlate and co-ordinate accurate concepts. It enables pupils to make learning, more concrete, effective, interesting, and meaningful. It also provides significant gains in information learning, retention and recall, thinking and reasoning activity, imagination, better assimilation and personal growth and development.

Educational Technology, in its wide sense understood today, includes "the development, application and evaluation of systems, techniques and teaching aids to improve human learning". The main objective of using of Educational Technology is to improve learning. However, this purpose can be fully achieved only if the teacher uses the hard ware and software properly. The growing use of Educational Technology in today’s schools has helped to release the teacher from the routine role of ‘pouring information’. Now he can devote his time and effort to the more important tasks like planning, arranging and evaluating learning experiences and outcomes and can encourage his students by giving proper guidance and counseling.

5.5. TOTAL QUALITY MANAGEMENT AND EDUCATIONAL TECHNOLOGY

TQM facilitates to improve teaching and learning. In the literature of TQM, quality is seen as meeting the requirements and expectations of the customer. In the field of education, the teacher’s skill is vital and therefore should form part of the stated quality requirements. Besides, Educational Technology is playing a prime role in promoting the skill among teachers. TQM and ET are equally important in improving the learner’s achievement.
5.6. NEED FOR THE STUDY

There is a hope that TQM brings greater dividends to quality teaching and learning process. If the schools fail to maintain quality and standards in the present-day highly competitive world, the sovereignty of a nation will stand threatened. Thus TQM has come to acquire a pride of place in the management of the school. The primary facets of advantages emerge from the facts that TQM in education enables teachers to understand and evaluate new technology options, enhance their intellectual capital, gain insights in their areas of operations, create a flexible and effective organizational structure and tap the potential of Educational Technology. For achieving the excellence in teaching and learning process, the teachers should select and use Educational Technology. Much reference material is not available to find out the relationship between Total Quality Management and Educational Technology in primary education.

Taking into account with these sentiments, the present study "The Attitude of Primary Teachers towards Total Quality Management in Relation To Their Attitude towards Educational Technology" was taken up.

5.7. STATEMENT OF THE PROBLEM

The concept of Total Quality Management (TQM) was developed by an American, W. Edwards Deming. It was developed for improving the production of quality goods and services. The concept of TQM is also applicable to academics. Many educators believe that the Deming’s concept of TQM provides guiding principles for needed educational reform.

TQM is a management philosophy that supports the process of continuous improvement within an organization and where total emphasis is placed on the
customer. TQM builds ethics, integrity and trust, develops training, team work and leadership and promotes conducive learning environment in the school and emphasizes the use of Educational Technology among the teachers. In order to achieve the quality education in the academic scenario, Educational Technology is crucial to the success of the school. It, it is hoped that TQM improves the Educational Technology in the school system. The investigator wants to make the practical evidences that TQM promotes Educational Technology in the schools. Generally, Total Quality Management improves the knowledge, attitude and skill among the employees of the system. Hence, the investigator selected this topic entitled "The Attitude of Primary Teachers towards Total Quality Management in Relation To Their Attitude towards Educational Technology".

5.8. OPERATIONAL DEFINITIONS OF KEY TERMS

The operational definitions of the important terms used in the present study are given below:

5.8.1. ATTITUDE

Attitude is the predisposition of an individual to evaluate some aspect of his world in a favorable or unfavourable manner. The aspect of his world that he evaluates includes symbols, objects, ideas and people. Fishblin and Ajzen (1975) have separated the concept of attitude from behavioural intentions and actual behaviors, both of which are open to a variety of sources of influence.

5.8.2. PRIMARY TEACHERS

The teachers who are handling the classes from standard I to V in primary schools are called primary teachers.
5.8.3. TOTAL QUALITY MANAGEMENT (TQM)

The main features of TQM have been succinctly summarized by Saylor (1992): "The TQM philosophy provides overall concept that fosters continuous improvement in an organization. This philosophy stresses a systematic, integrated, consistent organization-wide perspective involving everyone and everything. It focuses primary emphasis on total satisfaction for both internal and external customer, within a management environment that seeks continuous improvement of all processes and systems".

5.8.4. EDUCATIONAL TECHNOLOGY (ET)

The word 'technology' is derived from the Greek word 'technique' meaning 'art of skill'. It is concerned with the development, application and evaluation of system, techniques and aids to improve the process of human learning.

5.9. OBJECTIVES OF THE STUDY

The following are the objectives of the present study.

1. To develop and validate a tool for measuring the attitude of primary teachers towards Total Quality Management (TQM).

2. To develop and validate a tool for measuring the attitude of primary teachers towards Educational Technology (ET).

3. To study, whether there is any significant relationship between the attitude towards Total Quality Management (TQM) and Educational Technology (ET) among the primary teachers.

4. To find out whether there is any significant relationship between Total Quality Management (TQM) and Educational Technology (ET) attitude scores of primary teachers with respect to Teacher variables.
5. To find out, whether there is any significant relationship between Total Quality Management (TQM) and Educational Technology (ET) attitude scores of primary teachers with respect to Institutional variables.

6. To find out, whether there is any significant difference between Total Quality Management (TQM) attitude scores of primary teachers with respect to Teacher variables.

7. To find out, whether there is any significant difference between Total Quality Management (TQM) attitude scores of primary teachers with respect to Institutional variables.

8. To find out, whether there is any significant difference between Educational Technology (ET) attitude scores of primary teachers with respect to Teacher variables and

9. To find out, whether there is any significant difference between Educational Technology (ET) attitude scores of primary teachers with respect to Institutional variables.

**5.10. HYPOTHESES OF THE STUDY**

Based on the objectives of the study the following null hypotheses were formulated:

1. There is a no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the primary teachers of Thanjavur District.

2. There is no significant relationship between Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the male teachers of Thanjavur District.
3. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the female teachers of Thanjavur District.

4. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the primary teachers below 40 years of age of Thanjavur District.

5. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude score among the primary teachers of 40 years and above 40 years of age of Thanjavur District.

6. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the Hindu teachers of Thanjavur District.

7. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the non-Hindu teachers of Thanjavur District.

8. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the married teachers of Thanjavur District.

9. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the unmarried teachers of Thanjavur District.

10. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers below 20 years of experience of Thanjavur District.
11. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers with 20 years and more than 20 years of experience of Thanjavur District.

12. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers who are graduates of Thanjavur District.

13. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers who are higher secondary graduates of Thanjavur District.

14. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers with Diploma in Teacher Education of Thanjavur District.

15. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers with Degree in Teacher Education of Thanjavur District.

16. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the rural teachers of Thanjavur District.

17. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the urban teachers of Thanjavur District.

18. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers of Tamil medium schools of Thanjavur District.
19. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the teachers of English medium schools of Thanjavur District.

20. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the government school teachers of Thanjavur District.

21. There is no significant relationship between the Total Quality Management (TQM) and Educational Technology (ET) mean attitude scores among the aided school teachers of Thanjavur District.

22. There is no significant difference between the male and female teachers in their mean attitude scores towards Total Quality Management (TQM).

23. There is no significant difference between the teachers below 40 years of age and 40 years and above 40 years of age in their mean attitude scores towards Total Quality Management (TQM).

24. There is no significant difference between the Hindu and non-Hindu teachers in their mean attitude scores towards Total Quality Management (TQM).

25. There is no significant difference between the married and unmarried teachers in their mean attitude scores towards Total Quality Management (TQM).

26. There is no significant difference between the teachers below 20 years and 20 years and more than 20 years of experience in their mean attitude scores towards Total Quality Management (TQM).

27. There is no significant difference between the teachers who are graduates and higher secondary graduates in their mean attitude scores towards Total Quality Management (TQM).
28. There is no significant difference between the teachers with Diploma and Degree in Education in their mean attitude scores towards Total Quality Management (TQM).

29. There is no significant difference between the rural and urban teachers in their mean attitude scores towards Total Quality Management (TQM).

30. There is no significant difference between the teachers of Tamil and English medium schools in their mean attitude scores towards Total Quality Management (TQM).

31. There is no significant difference between the teachers of government and aided schools in their mean attitude scores towards Total Quality Management (TQM).

32. There is no significant difference between the male and female teachers in their mean attitude scores towards Educational Technology (ET).

33. There is no significant difference between the teachers below 40 years of age and 40 years and above 40 years of age in their mean attitude scores towards Educational Technology (ET).

34. There is no significant difference between the Hindu and non-Hindu teachers in their mean attitude scores towards Educational Technology (ET).

35. There is no significant difference between the married and unmarried teachers in their mean attitude scores towards Educational Technology (ET).

36. There is no significant difference between the teachers below 20 years and 20 years and more than 20 years of experience in their mean attitude scores towards Educational Technology (ET).
37. There is no significant difference between the teachers who are graduates and higher secondary graduates in their mean attitude scores towards Educational Technology (ET).

38. There is no significant difference between the teachers with Diploma and Degree in Education in their mean attitude scores towards Educational Technology (ET).

39. There is no significant difference between the rural and urban teachers in their mean attitude scores towards Educational Technology (ET).

40. There is no significant difference between the teachers of Tamil and English medium schools in their mean attitude scores towards Educational Technology (ET).

41. There is no significant difference between the teachers of government and aided schools in their mean attitude scores towards Educational Technology (ET).

5.11. PLAN FOR THE STUDY

The following flow chart explains the plan for the study.

```
Selection of problem

Formulation of objectives and hypotheses

Construction of tools

Selection of sample for the study

Analysis and Interpretation of data

Findings and conclusion
```
5.12. METHODOLOGY IN BRIEF

The investigator followed the ‘Survey’ method for the present study. The questionnaires were distributed to the primary teachers in Thanjavur District of Tamilnadu. The teachers from the primary schools in Thanjavur district have responded the questionnaires. The data thus collected were put into appropriate statistical analysis. The methodology includes:

i. Selection of sample

ii. Preparation of tools

iii. Pilot study

iv. Administration of the tools and

v. Analysis and interpretation

5.12.1. TOOLS USED FOR THE STUDY

The following two tools were employed in the study.

1. Teachers' Attitude Towards Total Quality Management (TATTQM).
   (M.Selvam, Dr.S.Vincent De Paul and Dr.T.K.Swatantra Devi, 2004) and

2. Teachers' Attitude Towards Educational Technology (TATET).
   (M.Selvam, Dr.S.Vincent De Paul and Dr.T.K.Swatantra Devi, 2004).

Before the final study the investigator conducted a pilot study, which consisted of 118 primary teachers in Thanjavur district of Tamil Nadu. Both the tools have adequate validity and satisfactory reliability.

5.12.2. SAMPLE FOR THE STUDY

The population here refers to all the 3593 teachers working in primary schools in Thanjavur district of Tamilnadu. Stratified random sampling technique was adopted for the present study. The investigator collected data from the primary
teachers in Thanjavur district of Tamilnadu. 619 primary teachers are the sample for this study.

5.12.3. VARIABLES OF THE STUDY

The Teacher variables (gender, age, religion, marital status, experience, general educational qualification and professional qualification) and Institutional variables (locale of the school, medium of instruction and type of management) were also considered for the present study.

5.12.4. DATA COLLECTION AND SCORING PROCEDURE

After deciding upon the sample the investigator contacted the heads of the selected primary schools. With the permission of the heads of the primary schools, the investigator personally administered the questionnaires. In administrating the tools, a uniform procedure was adopted throughout the selected schools. First the tools were distributed to each primary teacher and the investigator give general instruction to be followed, then explained how the primary teachers have to fill up the details and also the method of answering. After completion of the testing the tools were collected back from each primary teacher. Scoring of the response was done as per the scoring scheme of each tool. The scores were then tabulated for statistical analysis.

5.12.5. STATISTICAL TECHNIQUES USED IN THE STUDY

The collected data are subjected to different statistical analysis. The statistics used for this study are as follows.

1. Product moment correlation was applied to verify the relationship between the attitude towards the Total Quality Management and Educational Technology among the primary teachers and
2. 't'-test was used to find out the significant difference between the sub-variables on Total Quality Management and Educational Technology.

5.13. FINDINGS OF THE STUDY

Considering the objectives and hypotheses, specific findings were enumerated form the results and interpretations of the present study.

1. The calculated 'r' value 0.422 is greater than the table values 0.115 at 0.01 level of significance. It is inferred that, there is a positive significant relationship between the mean attitude scores towards Total Quality Management and Educational Technology among the primary teachers of Thanjavur District.

2. The calculated 'r' value 0.357 is greater than the table value 0.256 at 0.01 level of significance. It is concluded that, there is a positive significant relationship between the mean attitude scores towards Total Quality Management and Educational Technology among the male teachers.

3. The calculated 'r' value 0.424 is greater than the table value 0.115 at 0.01 level of significance. Thus it is inferred that, there is a positive significant relationship between the Total Quality Management and Educational Technology mean attitude scores among the female teachers.

4. The obtained 'r' value 0.408 is greater than the table value 0.115 at .0.01 level of significance. It implies that, there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the primary teachers of below 40 years of age.

5. The calculated 'r' value 0.479 is greater than the table value 0.256 at 0.01 level of significance. It is concluded that, there is a significant positive relationship between the Total Quality Management and Educational Technology mean
attitude scores among the primary teachers of 40 years and above 40 years of age.

6. The obtained 'r' value 0.409 is greater than the table value 0.115 at 0.01 level of significance. It is concluded that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the Hindu teachers.

7. The calculated 'r' 0.457 is greater than the table value 0.256 at 0.01 level of significance. It implies that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the Non- Hindu teachers.

8. The obtained 'r' value 0.430 is greater than the table value 0.115 at 0.01 level of significance. Hence, it is concluded that, there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the married teachers.

9. The calculated 'r' value 0.375 is greater than the table value 0.270 at 0.01 level of significance. It implies that there is a significant relationship between the Total Quality Management and Educational Technology mean attitude scores among the unmarried teachers.

10. The calculated 'r' value is 0.433 is greater than the table value 0.115 at 0.01 level of significance. This implies that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the primary teachers with less than 20 years of experience.

11. The calculated 'r' value is 0.344 is greater than the table value 0.256 at 0.01 level of significance. It implies that there is a significant positive relationship
between the Total Quality Management and Educational Technology mean attitude scores among the teachers with 20 years and more than 20 years of experience.

12. The obtained ‘r’ value is 0.366 is greater than the table value 0.182 at 0.01 level of significance. Thus it is conclude that, there is a significant relationship between the Total Quality Management and Educational Technology mean attitude scores among the graduate teachers.

13. The obtained ‘r’ value 0.482 is greater than the table value 0.182 at 0.01 level of significance. It is concluded that, there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among teachers who are higher secondary graduates.

14. The obtained ‘r’ value 0.430 is greater than the table value 0.115 at 0.01 level of significance. It is concluded that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the teachers with Diploma in Education.

15. The calculated ‘r’ value 0.414 is greater than the table value 0.256 at 0.01 level of significance. It is inferred that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the teachers with Degree in Education.

16. The calculated ‘r’ value 0.430 is greater than the table value 0.115 at 0.01 level of significance. Hence it is concluded that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the rural teachers.

17. The calculated ‘r’ value 0.403 is greater than the table value 0.182 at 0.01 level of significance. This implies that there is a significant positive relationship
between the Total Quality Management and Educational Technology mean attitude scores among the urban teachers.

18. The calculated 'r' value 0.420 is greater than the table value 0.115 at 0.01 level of significance. It is concluded that there is a significant relationship between the Total Quality Management and Educational Technology mean attitude scores among the teachers of Tamil medium schools.

19. The obtained 'r' value 0.400 is less than the table value 0.515 at 0.05 level of significance. It is concluded that there is no significant relationship between the Total Quality Management and Educational Technology mean attitude scores among the teachers of English medium schools.

20. The obtained 'r' value 0.307 is greater than the table value 0.115 at 0.01 level of significance. It is concluded that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the government school teachers.

21. The obtained 'r' value 0.498 is greater than the table value 0.182 at 0.01 level of significance. It implies that there is a significant positive relationship between the Total Quality Management and Educational Technology mean attitude scores among the aided school teachers.

22. The calculated 't' value 3.94 is greater than the table value 2.58 at 0.01 level of significance. Therefore it is concluded that there is a significant difference between the male and female teachers in their mean attitude scores towards Total Quality Management. The female teachers have more favourable attitude towards Total Quality Management (74.33) than the male teachers (70.19).

23. The obtained 't' value 1.256 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the
teachers below 40 years of age and 40 years and above 40 years of age in their mean attitude scores towards Total Quality Management. The teachers below 40 years of age and 40 years and above 40 years of age have equal level of attitude towards Total Quality Management.

24. The calculated 't' value 0.870 is less than the table value 1.96 at 0.05 level of significance. Thus it is concluded that there is no significant difference between the Hindu and Non-Hindu teachers in their attitude scores towards Total Quality Management. The teachers do not differ in their Total Quality Management attitude with respect to their religion.

25. The calculated 't' value 0.951 is less than the table value 1.96 at 0.05 level of significance. It implies that there is no significant difference between the married and unmarried teachers in their mean attitude scores towards Total Quality Management. The married and unmarried teachers have equal level of attitude towards Total Quality Management.

26. The calculated 't' value 1.918 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the teachers below 20 years and 20 years and more than 20 years of experience in their mean attitude scores towards Total Quality Management. The teachers do not differ in their attitude towards Total Quality Management with respect to their experience.

27. The calculated 't' value 0.858 is less than the table value 1.96 at 0.05 level of significance. It is concluded that, there is no significant difference between the teachers who are graduates and higher secondary graduates in their mean attitude scores towards Total Quality Management. The teachers who are graduates and higher secondary graduates have equal level of attitude towards
Total Quality Management.

28. The calculated 't' value 1.511 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the teachers with Diploma and Degree in Education in their mean attitude scores towards Total Quality Management. The teachers with Diploma and Degree in Education have more or less equal level of attitude towards Total Quality Management.

29. The obtained 't' value 0.631 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the rural and urban teachers in their mean attitude scores towards Total Quality Management. The rural and urban teachers do not differ in their attitude towards Total Quality Management.

30. The calculated 't' value 1.833 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant between the teachers of Tamil and English medium schools in their mean attitude scores towards Total Quality Management. The teachers of both Tamil and English medium schools have more or less equal levels of attitude towards Total Quality Management (TQM).

31. The obtained 't' value 1.053 is less than the table value 1.96 at 0.05 level of significance. Hence it is concluded that there is no significant difference between the teachers of government and aided schools in their mean attitude scores towards Total Quality Management. The teachers of government and aided schools have equal level of attitude towards Total Quality Management (TQM).
32. The calculated 't' value 3.086 is greater than the table value 2.58 at 0.01 level of significance. It implies that there is a significant difference between the male and female teachers in their mean attitude scores towards Educational Technology. The Female teachers have more favourable attitude towards Educational Technology (60.01) than the male teachers (57.87).

33. The obtained 't' value 1.476 is less than the table value 1.96 at 0.05 level of significance. It is inferred that there is no significant difference between the primary teachers below 40 years and 40 years and above 40 years of age in their mean attitude scores towards Educational Technology. The teachers within 40 years of age and above 40 years of age have equal level of attitude towards Educational Technology (ET).

34. The obtained 't' value 0.579 is less than the table value 1.96 at 0.05 level of significance. Hence, it is concluded that there is no significant difference between the Hindu and Non-Hindu teachers in their mean attitude scores towards Educational Technology. The teachers do not differ in their Educational Technology attitude with respect to their religion.

35. The calculated 't' value 0.332 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the married and unmarried teachers in their mean attitude scores towards Educational Technology. The married and unmarried teachers have equal level of attitude towards Educational Technology.

36. The obtained 't' value 1.80 is less than the table value 1.96 at 0.05 level of significance. It is inferred that there is no significant difference between the teachers below 20 years and 20 years and more than 20 years of experience in their mean attitude scores towards Educational Technology. The teachers do
not differ in their attitude towards Educational Technology with respect to their experience.

37. The calculated 't' value 0.123 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the teachers who are graduates and higher secondary graduates in their mean attitude scores towards Educational Technology. The teachers who are graduates and higher secondary graduates have equal level of attitude towards Educational Technology.

38. The obtained 't' value 1.203 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the teachers with Diploma and Degree in Education in their mean attitude scores towards Educational Technology. The teachers with Diploma and Degree in education have more or less equal level of attitude towards Educational Technology.

39. The calculated 't' value 0.931 is less than the table value 1.96 at 0.05 level of significance. It is occluded that there is no significant difference between the rural and urban teachers in their mean attitude scores towards Educational Technology. The rural and urban teachers do not differ in their attitude towards Educational Technology.

40. The obtained 't' value 1.522 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the teachers of Tamil and English medium schools in their mean attitude scores towards Educational Technology. The teachers of both Tamil and English medium schools have more or less equal level of attitude towards Educational Technology.
41. The calculated 't' value 0.510 is less than the table value 1.96 at 0.05 level of significance. It is concluded that there is no significant difference between the teachers of government and aided schools in their mean attitude scores towards Educational Technology ET. The teachers of government and aided schools have equal level of attitude towards Educational Technology.

5.14. DISCUSSION

The present study revealed the following facts:

Total Quality Management and Educational Technology were the major concerns in the present investigation. The primary teachers were divided into various sub samples such as gender, age, religion, marital status, experience, general educational qualification, professional qualification, locale of the school, medium of instruction and type of management. Further, the sub samples were classified into pairs like male and female; below 40 years of age and 40 years and above 40 years of age; Hindu and Non-Hindu; married and unmarried; below 20 years of experience and 20 years and above 20 years of experience; graduates and higher secondary graduates, Diploma and Degree in Education; rural and urban; Tamil and English medium and government and aided schools.

It is known from the study that there is a significant correlation between the Total Quality Management and Educational Technology mean attitude scores, among the primary teachers in Thanjavur district of Tamil Nadu. The interesting point is that the Total Quality Management significantly influences Educational Technology among teachers.

From the study, it is found that there is significant difference between the male and female teachers in their mean attitude scores towards Total Quality Management and Educational Technology.
It is learnt from the present study that the female teachers' mean attitude scores on Total Quality Management and Educational Technology were higher than that of the male teachers. This may be perhaps the female teachers have a clear idea on Total Quality Management and Educational Technology and they might have practiced properly.

5.15. DELIMITATIONS OF THE STUDY

The present study has been limited to the following due to constraint of time and resources.

i. Among the 30 districts in Tamil Nadu, this study is limited to only one district namely Thanjavur.

ii. 619 primary teachers have been drawn as sample from the entire population of 3593 primary teachers in Thanjavur district

iii. Certain specific types of variables were considered in this study.

5.16. EDUCATIONAL IMPLICATIONS

Total Quality Management is a process by which individuals, groups, organizations, institutions and societies develop abilities (individually or collectively) to perform function, solve problems and achieve objectives. From the analysis, it has been found that there is a relationship between the attitude towards Total Quality Management and Educational Technology among the primary teachers. Hence, it is suggested that Total Quality Management should be incorporated in the primary schools by providing training in Total Quality Management practices so that the school can perform in an effective manner.

Educational Technology plays a dominant role for improving the quality of education. It deals with effective planning and utilization of available human and non-human resources and to maximize human learning among the students. It consists of
all material, media and methodology which are used for optimization of learning. Therefore, it is suggested that government must take the initiative and ensure that the primary schools are equipped with all the essential educational technology facilities.

In-service training programmes need to be redesigned suitably to make teachers more aware and competent in practicing Total Quality Management and Educational Technology concepts in the working stations.

The present study concludes that there is a significant difference between female and male teachers regarding their attitude towards Total Quality Management and Educational Technology. The mean attitude scores of female teachers on Total Quality Management and Educational Technology were higher than that of their counterparts. So the male teachers should be given in-service training on Total Quality Management and Educational Technology.

5.17. RECOMMENDATIONS

The following recommendations were made based on the findings of the present study.

i. There is a positive significant relationship between the mean attitude scores towards Total Quality Management and Educational Technology among the primary teachers of Thanjavur district in Tamil Nadu. It should be maintained and measures have to be taken to improve it further.

ii. It was found that the female teachers have more favourable attitude towards Total Quality Management than the male teachers. Special training courses can be conducted based on the features of Total Quality Management for the male teachers, so that their attitude towards Total Quality Management can be improved. These types of programmes can be added in the in-service training programmes.
iii. It has been found that the female teachers have more favourable attitude towards Educational Technology than their counterparts. Measures have to be taken to improve the attitude of male teachers, so that they should contribute equally as female teachers for the success of teaching and learning process.

iv. Female primary teachers seem to have higher attitude towards TQM and ET when compared with male primary teachers. Male primary teachers should be motivated to have more attitudes towards TQM and ET through conferences, seminars and informal chats.

v. Female primary teachers’ attitude towards TQM and ET seem to be higher than their male counterparts. This may be due to the committed nature of female teachers who prefer TQM and ET for their teaching very much. Male primary teachers also should be encouraged to devote themselves committed to TQM and ET for their teaching profession.

vi. Institutions where the primary teachers work should realize their part in the joint venture to allow teachers avail the research projects in TQM, advance training in ET, visits to advance institutions which contribute to the high attitude towards TQM and ET among the primary teachers.

5.18. SUGGESTIONS FOR FURTHER STUDY

In the light of the present research and its results, it is suggested to undertake the following studies.

i. This study can be carried out with different samples in different area.

ii. Similar studies can be conducted with other levels of teachers like high school, higher secondary and tertiary level.

iii. Studies can be done to find out whether there is any relationship between Total Quality Management and other areas in the field of education.
iv. This type of research can be conducted by considering the other variables of teachers.

5.19. CONCLUSION

On the basis of results and discussions of this research, it may be concluded that there is a significant relationship between the Total Quality Management and Educational Technology mean attitude scores of primary teachers in Thanjavur district of Tamilnadu.

In order to improve the quality in education, policy makers should focus more attention on Total Quality Management components and Educational Technology right from primary education.