CHAPTER - 1

INTRODUCTION AND CONCEPTUAL FRAME WORK

1.1 Introduction

The need of quality education was declared by Jawaharlal Nehru (1953) “If all were well with our educational institutions, all would be well with the nation. Educational Institutions are intimately linked with the society at large. They are the temples of knowledge; they are the agents of change and transformation. Therefore the general condition of educational institutions is a matter of great concern to the nation”.

It is a misconception that the quality education is expensive and exclusive prerogative of the elite. On the contrary, it is hard work, commitment and dedication on the part of all concerned in an organization that brings in quality. Quality has to be built into the system slowly and steadily. Even in case good institutions with adequate physical facilities sustained, maintenance of quality is not an easy task.

Quality assurance mechanisms require an integrated approach of all the facts of institutional activities. Although quality depends to a great extent on the effectiveness of the teaching-learning process, this alone does not constitute the total quality education which implies the fulfillment of the mission, goals and objectives of the institution, faculty strengths, input-output levels of students, physical infrastructure, interactions with employing agencies, evaluation process, extension activities, feedback mechanisms, the curricula etc. Even if an institution possesses great strength in some aspects, abnormal weaknesses in certain other aspects can prove to be a hindrance for achieving total quality education. Establishment of “Quality Circles” for the programme offered by the institutions can be a great help for fulfilling the goal for total quality education. The present
study is a piece of research work on Total Quality Management (TQM) in teacher education institutions.

1.2 Historical Backdrop of the Study

After the Second World War, the United States of America was forced to improve the production of Quality of goods and services. Total Quality Management (TQM) concept was developed by an American W. Edwards Deming (1986). Till 1980s the Japanese only were concentrating in Total Quality Management concept where they dominated in world markets.

Total Quality Management is a management philosophy concerned with people and work processes that focuses on customer satisfaction and improves organizational performance. Total Quality Management requires an enterprise to systematically energize, manage, coordinate, and improve all business activities in the interest of the customers. Total Quality Management requires improvements throughout an organization to reduce waste and rework, to lower costs, and to increase productivity.

Total Quality Management has its roots in many disciplines, including economics, industrial engineering, social psychology, mathematical statistics, and management science. Over the last few years, Total Quality Management has been applied in the educational system. Hence, it is imperative to discuss the origin and development of TQM in different perspectives.

1.2.1 The Development of Total Quality Management

Total Quality Management is not derived from a single idea or person. Though most quality writers and practitioners trace the quality movement’s origins to W. Edward Deming (1986) Joseph M. Juran (1988) and Philip B. Crosby (1979). The roots of quality can be traced even further back, to Frederick Taylor in the 1920s. Taylor is recognized as the “father of scientific management”. The
history of management reveals how manufacturing left the single craftsman’s
daylight, and prompted companies to develop a quality control department. As
manufacturing moved into big plants, between the 1920s and the 1950s, the terms
and processes of quality engineering and reliability engineering developed
tremendously. During this period productivity was emphasized and quality was
checked at the end of the line. But one thing is clear, total quality management is
not derived from the quality gurus or a single idea. Total Quality Management
took a long time to develop and take its present shape moving through a sense of
steps.

There are four steps: inspection, quality control, quality assurance and total
quality management on the top: this is illustrated by the following figure 1.1

![Fig. 1.F.1: The Developmental Stages of Total Quality Management](image)

1.2.2 Quality Inspection stage

Quality management started with simple inspection-based systems. Under
such a system, one or more characteristics of a product are examined, measured or
tested and compared with specified requirements to assess its conformity (Kanji & Asher, 1993). This system is used to appraise incoming products, manufactured components and assemblies at appropriate points in the production process. It is undertaken mainly by the staff employed specifically for this purpose. Products which do not conform to specification may be scrapped, reworked or sold as lower quality items. In some cases, inspection is used to grade the finished products. The system is an after-the-fact screening process with no prevention content other than, perhaps, the identification of suppliers, operations or workers manufacturing non-conforming products. Simple inspection-based systems are usually wholly in-house and do not directly involve suppliers or customers.

Quality Inspection is the joint effort in the teacher education institutions. The principal and the teacher-educators are directly involved in the inspection process. The head of the institution (principal) can inspect the institution’s documents, bank accounts, the infrastructural facilities, etc.

The teacher-educators can inspect the dress code of the student-teachers, record work, co-curricular activities, innovative educational practices, micro teaching, teaching practice, etc.,

Here, the principal may delegate some responsibilities to the teacher-educators. If so, the principal can spend ample time on educational administration and management activities.

1.2.3 Quality Control Stage

Under a system of quality control, product testing and documentation control became the ways to ensure greater process control and reduced non-conformance. Typical characteristics of such systems were performance-data collection, feedback to earlier stages in the process, and self-inspection. While screening inspection was again the main mechanism for preventing products
which were outside the specification from being shipped to the customers, quality control measures led to greater process control and a lower incidence of non-conformance.

The teacher education institutions in India are governed and controlled by the affiliated universities. Before the teacher education institution is affiliated with a university, the teacher education institution should be inspected by the committee members. The committee is appointed by the NCTE, because the NCTE frames the policies and guidelines for the teacher education.

After a teacher education institution is started, it should follow the rules and regulations which are formulated by the respective authorities; it may be the NCTE or the respective universities. Thus the universities and NCTE are to play a key role for quality control of the teacher education institutions.

1.2.4 Quality Assurance Stage

The quality assurance stage came with the change away from product quality towards system quality. In this stage, an organization sets up a system for controlling what is being done and the system is audited to ensure that it is adequate both in design and use. A major part of this change is the use of both second-party and third-party audits to assess the efficiency of the system. The major characteristics of this stage are the use of quality manuals, procedures, work instructions, quality planning, quality audits, etc. The fundamental difference is that quality assurance is prevention-based while quality control is inspection-based.

Quality assurance has been defined by Green & Harvey (1993) as “the mechanism and procedures designed to reassure the various “stakeholders” in higher education that institutions accord a high priority to implementing the policies designed to maintain and enhance the institutional effectiveness”. It is a
dynamic process involving continuous monitoring of performance and corrective actions when necessary. It extends to making the process and standards known to the educational community and the public at large. It is the achievement of desired standards through application of agreed procedures.

In teacher education, quality assurance means the teacher educational institution assuring the students, parents, and the community at large who will do their best to achieve outstanding, long-lasting results and a high quality of achievement in their results. The resulting quality arises from the quality of preceding hard work of the teacher-educators, the administrators and the parents.

1.2.5 Total Quality Management Stage

Total Quality Management stage is the highest level, involving the application of quality management principles to all aspects of the business. Total Quality Management requires that the principles of quality management be applied in every branch and at every level in an organization. Typical of an organization going through a total quality process would be a clear and unambiguous vision, few interdepartmental barriers, time spent on training, excellent supplier and customer relations and the realization that quality is not just product quality but also the quality of the whole organization.

Dale (2003) defines Quality Assurance as “All the planned and systematic activities implemented within a quality system and demonstrated as needed to provide adequate confidence that an entity will fulfill requirements for quality”. The same author indicates that quality started with inspection developing into quality control (QC) graduating to quality assurance (QA) and ultimately reaching the climax of total quality management (TQM). Total Quality means “complete quality or absolute quality”.

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1.2.6 Total Quality Management in Teacher Education Context

Quality is seen as a complex issue as education is concerned with human being as product, the description cannot encapsulate all the characteristics of teachers or learners in the same way, as one could describe the quality of commodities. Hence, the definition of quality varies depending upon the individual, institution and educational situation, social and national context. Many factors interact in determining quality education, i.e., pupils and their background characteristics; teachers, administrators and their skills; schools, their infrastructure and ethos; curricula; and societal expectations. Further, the major factors of quality concerns in education are input, process and product factors.

Surinder Kaur (2010). The quality of education that the teachers provide to our children depends on the quality of education of teachers injecting into the education system, which in turn depends on the quality of teacher education programme. Only competent, committed and resourceful teachers can give quality education. Quality is not just the quantum of knowledge imparted to students but also the effectiveness with which they are able to apply that knowledge in meeting the challenges of tomorrow. Quality of teacher education programme also depends on the quality of teaching. For this there is urgent need for a comprehensive review of the curriculum. There is a need for training teachers in community health, guidance and counseling, research, strategies, competitions, personal development and student support services. Training in the use of computers has become a major priority for the teachers both nationally and internationally. A well developed programme of professional development is, therefore, required, to enable the teacher educators to develop these skills.

The destiny of India lies in its classroom. This has been pointed out by the Education Commission Report, 1964-66. This implies that the teacher, who is the organizer and controller of the classroom is mostly responsible for the future of
India. The teacher is building the future citizen of the country. As the teacher moulds the children so the country will be moulded. From this point of view, a lot of responsibilities that lie with the teachers must be properly equipped with necessary knowledge, skills and abilities to deal with the children. It is in this context that education of teachers becomes most important in any country.

The purpose of teacher education is to produce teachers who have professional competencies. The role of teachers is no longer confined to teaching alone. They need to be thorough professionals, fully equipped with high academic standard, pedagogical and practical skills. Recognizing the global perspectives in education, the Jacquas Delores Commission in its report ‘Learning’: The Treasure within (UNESCO, 1996) highlights challenges that are to be responded by the teacher and the teacher preparation system. The programme of teacher education for various stages in its input, process and output to make the system quality oriented.

Indian institutions of teacher education are far behind those in developed countries. The teachers need to make the system of teacher education more innovative and futuristic in order to respond to the changing demands of the society. Knowledge and information sharing service as a major resource of creating values; at the same time it is a matter of great concern that quality of education at all levels is declining. To maintain the standards and to update the quality of teacher education the teacher require commitment, complete involvement of all the personnel, friendly management and training of the people concerned.

Teacher-Educators thus have to be motivated enough to plan for their own personal and professional development. The teachers are expected to take the responsibility and take charge for their own learning and development. As such self discipline and self are the factors responsible for success.
Teachers are the kingpins of any educational systems. It is said that teachers affect eternity; nobody can tell where their influence stops. New National Policy on Education (NPE) 1986/1992 says that no nation can rise above the level of its teachers. Therefore, the responsibility of the teacher education is to produce teachers of high quality.

1.2.7 Implementations of Total Quality Management in Teacher Education Institutions

In order to implement TQM in the teacher education institutions, there are certain prerequisites that need to be met. It includes the establishment of corporate or organizational values that everyone can look up to, the establishment, training and development of quality circles, the establishment of management relationships with internal and external suppliers, and quality certification. In order to implement total quality management there also needs to be a structure that will conduct quality assurance and control. The structure will consist of the college advisory council, which will act as an overall quality assurance mechanism quality assurance. The management committee will ensure quality in and through administration.

The above structure will implement the total quality management policy. The policy will be articulated by the management committee, approved by the academic board and validated by the council.

A Model Quality Assurance Policy (2009) emphasizes that

- The college of education will strive to control and assure quality of the total academic and non–academic cycle. There shall be policies and procedures for maintaining, monitoring and evaluating the standard of academic output.
The college of education shall assure quality of the student-teachers’ training within the colleges and on internship programmes. As a training institution, the college of education will stress not only on academic quality but also on hands-on experience.

The college of education shall be committed to the quality of its output through internal and external assessments by the peers and experts. There will therefore be a system of internal assessment by the peers, at least twice in a term and external assessment by experts twice in a term and external assessment by the experts twice a year.

The college of education will also strive to take into account the views of its student-teachers. The student-teachers are the most important stakeholders within the college of education; therefore they need to be given due attention. There will be an evaluation of teacher-educators by student-teachers in addition to the teacher-educators’ evaluation by the supervisor in an endeavor to improve quality of instruction. To ensure that the student-teachers’ welfare within the classroom or the laboratory is taken care of, a Dean of Student-Teachers’ is required to look after the non-academic welfare of the student-teacher and a Dean of Studies’ or Academic Dean must look after their academic welfare.

Student-Teacher / teacher-educator ratio shall be 12:1 to ensure that quality of output is maintained.

1.2.8 The Concept of Quality

The word quality itself stems from the Latin qua litas which means “of what kind”. Quality has emerged as and remains a dominant theme in management literature since the 1980s. Despite its popularity, the term has a variety of contradictory meanings. This is partly because the term implies different meanings to different people in different contexts. This confusion can also be due to the ambiguity of the term itself as it is a context dependent construct. Pfeffer & Coote
(1991) state “quality has a slippery meaning”. In order to gain an understanding of the concept of ‘quality’, various definitions will now be discussed. Thus it is imperative to draw from various dictionary definitions of the word ‘quality’, the following aspects are highlighted:

- The standard of something as measured against other things of a similar kind.
- A degree of excellence or worth.
- The condition of being of such and such a sort as distinguished from others, nature or character relatively considered, as of goods; character; sort; rank.

Definitions that have been put forward by different dictionaries tend to focus on various different facets of the term. These facets typically go around the idea of the nature of the product or service, the excellence, the comparison and competition of the same kind of things. All of the previous definitions are merely general meanings of quality. When applied in this way almost none of them are satisfactory to Total Quality Management.

In reviewing the literature on management, it is revealed that there are also various definitions of quality. These definitions are related to a body of knowledge about product, service and customer and client satisfaction. Deming, Crosby and Juran are the key writers whose individual ideas continue to dominate the quality movement. Deming (1986) “Quality should be aimed at the needs of the consumer, present and future”. In his definition of quality, he emphasizes that the stakeholder is the most important group in measuring the quality, and their needs and expectations should be surveyed, anticipated and satisfied.

In the field of education, the literature review shows the several attempts at defining quality in education. For instance Hoy (2000) defines quality in education as an evaluation of the process of educating which enhances the need to achieve and develop the talents of the customers of the process, and at the same time meets
the accountability standards set by the clients who pay for the process or the outputs from the process of educating.

Thus, they consider quality as a tool for evaluating the educational process to meet the standards that are set by clients. At the same time, they consider the students to be customers and the parents as clients. Hoy (2000) adds that both the customers and the clients are interested in the quality of the education provision, in the same way the local education authorities are also concerned about quality.

Murgatroyd & Morgan (1993) state that there are three basic definitions of quality in education: quality assurance, contract conformance and customer-driven. Quality assurance refers to the determination of standards, appropriate methods and quality requirements by an expert body, accompanied by an inspection process that examines the extent to which practices meet the standards. For example, where a panel of experts on teaching might develop evaluation instruments that seek to itemize the characteristics of effective teachers. Contract conformance is where some quality standards have been specified during the negotiation of forming a contract. For example, the duties and tasks assigned for teachers by the schools. However, it is not a simple task to specify the process of teaching in terms that allow for easy definition. Further such attempts would be reductive, limiting opportunities for learning. The customer-driven quality refers to the meeting and exceeding the needs and expectations o the customers. Students, for instance, can have some needs which must be taken into the schools’ account to be satisfied.

From the review of the different definitions of quality, it is notable that quality is defined according to the authors’ background and profession. While there is no universal agreement on a definition for quality, there is a general accord regarding the concept of quality and how the stakeholder satisfaction and the existence of quality in all the processes are important to retain the customer
loyalty, to reduce the cost of the products or services and prevent the reworking of the processes.

It is important to note that quality can be said to exist when products or services meet the pre-defined specifications. “Quality is not the end in itself, but a means by which the end product is judged to be up to the standard” (Sallis 1993). Hence, quality must be the primary goal of any organization wishing to develop in a changing world.

For the purposes of this investigation a broad definition of the term Total Quality Management is required that includes its strategic, operative, administrative and behavioral aspects and which emphasizes that the creation of Total Quality Management in institutions is a continuous, holistic and integrated process initiated and maintained by the management. As per Djerdjour & Patel (2000) Total Quality Management cannot be fully understood through one definition only. In that way the investigator intends to analyze some definitions of the experts.

Kanji & Wallace (2000) defines the Total Quality Management as: “Total Quality Management is the culture of an institution committed to customer satisfaction through continuous improvement”. The two researchers also use the following definition: “Total Quality Management is a corporate culture characterized by the increased customer satisfaction through continuous improvements, in which all the employees in the firm actively participate”.

Sashkin & Kiser (1993) an experts on the subject, offered this definition of Total Quality Management: “Total Quality Management means that the institution’s culture is defined by and supports the constant attainment of the customer satisfaction through an integrated system of tools, techniques and
training. This involves the continuous improvement of the institutional processes, resulting in high quality products and services”.

Here two points are important namely

1. Customer Satisfaction and
2. Continuous Improvement.

Hence, the teacher education institutions should satisfy the student-teachers requirements in the following ways:

- Provide sufficient infrastructure facilities.
- Provide instructional facilities.
- Adopt proper evaluation technique.
- Conduct curricular and co curricular activities.
- Allow the student-teachers to do research and development.
- Provide guiding and counseling facilities.
- Motivate the student-teachers to do community services.
- Arrange scholarships for economically backward student-teachers.
- Organize a placement committee in the teacher education institution and
- Organize alumni association in the teacher education institution.

“Total Quality Management as a management process and institutional-wide process to instill a culture of continuous improvement in an institution to ensure that the institution consistently meets and exceeds customer requirements” (Parzinger & Nath, 2000).

“Total Quality Management as a continuous management process that aims at quality improvement in all processes and activities in institutions. The ultimate goal of Total Quality Management is to establish a management system and institutional culture that ensures customer satisfaction and never-ending
continuous improvement of all institutional processes” (Senthil 2001) & (Selladurai 2002).

“Total Quality Management as a management philosophy, which seeks continuous improvement in the quality of all processes, people, products and services of an institution. Continuous improvement can be achieved through internal and external quality improvements” (Djerdjour & Patel, 2000).

“Total Quality Management as an integrated management philosophy and set of practices that emphasize continuous improvement, meeting customers’ requirements, reducing rework, long-range thinking, increased employee involvement and teamwork, process redesign, competitive benchmarking, team-based problem-solving, constant measurement of results and closer relationships with suppliers” (Pun 2002).

It is learnt that Continuous improvement will bring Total Quality Management in the teacher education institutions. Continuous improvement in all the fields like

- Admission procedures.
- Teaching activities.
- Micro-teaching.
- Practice teaching.
- Evaluation technique and
- Co curricular activities.

Year by year, the teacher education institution should follow the advanced methods in the above fields. Thus, the teacher education institution brings continuous improvement. Continuous improvement is a joint effort taken by the principals, teacher-educators, student-teachers, parents and the community.
“Total Quality Management as an integrated, systematic, institution-wide strategy for improving product and service quality” (Dean & Evans, 1994).

Total Quality Management as “… a strategy for improving institutional performance through the commitment of all employees to fully satisfying agreed customer requirements at the lowest overall cost through the continuous improvement of products and services, business processes and the people involved” (Jones 1994).

It is suggested that the teacher education institution should improve its performance at every stage. The teacher education institution also satisfies its student-teacher needs in the following ways:

- The teacher educators use modern teaching aids in the class rooms and
- The management provides all the facilities to the student-teachers.

“Total Quality Management as a total system approach and an integral part of high-level strategy; it works horizontally and vertically across all functions and departments, involves all employees, top to bottom, and extends backward and forward to include the supply chain and the customer chain” (Evans & Dean, 2003).

“Total Quality Management as a management system in continuous change, which comprises values, techniques and tools and that the overall goal of the system is increased customer satisfaction with decreasing resources” (Hansson 2001).

The implications of the above views are that the teacher education institution should follow a common system. It means the orders, circulars, instructions comes from the top management. It means the above come from the principal / secretary of the teacher education institution.
Suggestions, feedback go to the management from the bottom. It means the above go to the management from the student-teachers. If there is any confusion in the above system, it will lead to system disorder.

Total Quality Management in education is totally a new concept and new technique to translate the perception of quality in education to direct the human behavior. Now the researcher will proceed to historical review of Total Quality Management with special reference to teacher education.

Many of the recognized quality gurus did not actually use the term Total Quality Management, although their work has subsequently been recognized as being relevant and sometimes quoted as referring to Total Quality Management. Total Quality Management is an extension of the traditional approach. Although the origins of Total Quality Management go back to the 1940s and 1950s; Feigenbaum first used the term formally in 1957. More recently, Total Quality Management has been developed through a number of widely recognized approaches put forward by several “quality gurus” such as Crosby, Deming, Feigenbaum, Juran and Ishikawa. The emphasis placed on various aspects of Total Quality Management varies among the authorities, but the general thrust of their arguments is similar. Therefore it is important to understand the contributions from these quality pioneers.

W. Edward Deming (1900-1993). Many consider Deming as the father of quality. His contributions to quality management have been most influential, so much so that he is considered an internationally acclaimed expert. The offerings for which Deming is most widely known are the Deming Cycle and his fourteen points.
1.2.9 The Deming Cycle

The Deming cycle was developed to link the production of a product with consumer needs and focus the resources of all departments (research, design, production, and marketing) in a cooperative effort to meet those needs. The Deming cycle proceeds as follows:

The plan–do–check–act cycle (Figure 2) is a four-step model for carrying out change. Just as a circle has no end, the Deming cycle is repeated again and again for continuous improvement.

![Deming cycle diagram]

Fig. 1.F.2: Deming cycle

The eminent Total Quality Management (TQM) guru and renowned statistician Edward W. Deming introduced Deming’s cycle as: PLAN, DO, CHECK and ACT. This is called PDCA cycle. Deming created a diagram to illustrate this continues improvement process.

**PLAN**: Determine goals and methods of reaching goals.

**DO**: Implement plan and measure its performance.

**CHECK**: Assess the measurements.

**ACT**: Take the appropriate action.
In a teacher education institution, the principal/secretary/chairman has to prepare the institution’s plan in advance. The plan may be a year plan or a term plan. The second step is implementing the plan in the institution with the help of the teacher-educators. The third step is to check or assess the progress of the plan periodically and the fourth step is to check if there is any struggle and then the management has to take appropriate action to solve the problems.

1.2.10. Deming’s 14 points for the Teacher Education Institutions

Deming cycle can be gainfully applied to all academic activities that too without any immediate financial implications. But it will be better if this is applied to the most significant person that is who is much closer to the student-teachers. The faculty-member or teacher is closer to the student-teachers and so prime choice for quality initiatives because of his daily interaction with them. One of the important functions required for successful implementation of PDCA cycle is to act upon getting the feedback. But the question is how frequently or when the feedback is to be obtained. First, collect the feedback as and when feasible or at appropriate checkpoints. Secondly, collect feedback at the end of the session. Hence this method gives ample opportunities to teacher-educators to improve teaching.

Edwards Deming, the father of Total Quality Management, has a 14 point process for principles to improve quality and productivity which are forested to applying into any colleges of education.

- Create constancy of purpose for continual improvement of the products and service. Create and maintain constancy of purpose toward improvement of student-teachers. Many classes in many Colleges of education have rather poorly defined and confusing objectives. It is better that all staff, administrators and student-teachers work through consensus building to determine these goals, taking into consideration the mission, vision and
values of the institution, the needs of the students, and the requirements of the society.

➢ Adopt the new philosophy. We are in the new economic age, created by Japan. We can no longer live with commonly accepted levels or delays, mistakes, defective materials and defective workmanship. Adopt the new philosophy: challenge, encourage, empower and trust the students-teachers, teacher-educators and the parents.

➢ Cease dependence on inspection: Eliminate the need for mass inspection as a way to achieve quality by building quality into product in the first place. Cease dependence on testing to achieve quality. Eliminate the need for inspection on a mass basis (standardized achievement tests, minimum graduation exams), by providing learning experiences which create quality performance, creativity and experimentation. Student-teachers who do poorly in quizzes, tests, homework are mostly left behind because of the teacher-educators’ need to rush through the curriculum. Student-teachers who do poorly in tests have not mastered the material but the unit is over and everyone has to move on. Yet, the student-teachers, who do not understand the work, usually know that they don’t understand, but nothing is done to rectify the situation and so the system breaks down and those student-teachers are labeled “failures”. It is inevitable for them to be failures if the teacher-educators do not adopt the new philosophy and fail to give them the necessary time.

➢ End the practice of awarding business solely on the basis of price tag. Work with educational institutions from which student-teachers come and improve the relationships with the institutions of student-teacher sources. Doing this will enable the organization/classroom teacher-educator to build a long term relationship of trust and support among student-teachers.

➢ Improve constantly and forever the system of planning, production and service to avoid problems, to improve quality and productivity, and thus to
constantly decrease costs. Improve constantly and forever your classroom techniques until all student-teachers have achieved a high degree of success and are doing quality work. Therefore teacher-educators themselves must make personal and professional development plans if they are to become examples for their student-teachers. The next stage is the continuous updating of teaching techniques, evaluation of daily happenings and close observation of different learning.

- **Introduce modern methods of training and retraining on the job for all, including the management to make better use of every employee.** Institute continuous training on the job in the classroom for each student-teacher and teacher-educators. No one, the staff, and the management or student-teachers can do their job properly if they do not know their job precisely.

- **Adopt and institute leadership aimed at helping people to do a better job.** *Adopt and institute leadership.* The main aim of teacher-educators is to help the student-teachers to do a better job. According to Deming, 85% of the problems within any organization is the result of poor management and workers can control only 15%. This fact emphasizes that teacher-educators have a new role as classroom managers. Teacher-educators should become leaders rather than managers and serve as role models. It can be possible by: a) empowering student-teachers: b) being aware of the difficulty people have with regards to change: c) student-teachers must be made aware of the fact that improvement means change for the better and therefore, they should learn to adopt change.

- **Drive out fear.** Encourage for the effective two-way communication and other means to drive out fear throughout the organization. Drive out fear by creating an environment that encourages people to speak freely so that everyone can work for the college of education system. Unfortunately, many colleges of education operate on fear of punishment, low grades.
When the teacher-educators give proper training to micro-teaching, the student-teachers may perform better in the practice teaching without fear.

- **Break down the barriers between departments and staff areas.** Break down the barriers between departments. People in teaching, special education, research, administration, curriculum development must work together. Institute is formed of different departments, which have their own interests, traditions, values and formal objectives. Even different subject teachers act or think differently.

- **Eliminate the use of slogans, poster ad exhortations for the workforce.** In a quality classroom student-teachers in the same class work as a team. Therefore, it is better to eliminate exhortations and slogans as these create adverse relationships.

- **Eliminate work standards that prescribe numerical quotas for the workforce and numerical goals for people in management.** Eliminate the traditional, standardized grading system from the classroom. In his book “The New Economics for Industry, Government and Education” (1993) Deming points out: “Our educational system would be improved immeasurably by the abolishment of grading. No one can enjoy his work if he will be ranked with others.” Classroom goals should not focus on numbers, as it is a known/proven fact that standardized test scores usually ignore more important measures of student knowledge. They cannot test critical thinking or problem solving skills. Therefore, it is critical that education today be “outcomes based”.

- **Remove the barriers that rob hourly workers, and people in management, of their right to pride of workmanship.** Remove the barriers that rob the student-teachers and teacher-educators of their right to pride and joy of workmanship. Teacher-educators always have to do a wide range of things in a very limited time space. Therefore, we tend to urge our student-teachers to do the task fast. Moreover, we don’t spare the necessary time for
feedback. In other words, we do not provide the necessary time and tools but expect our student-teachers to do quality work. Therefore, it is crucial that teacher-educators believe everyone wants to do quality work and make advance preparations for their student-teachers to perform the task, keeping in mind the individual differences.

- **Encourage education and self-improvement for everyone.** Encourage education and self-improvement for every student-teacher and teacher-educators. Things change fast in our world. Therefore, our student-teachers must learn to adopt themselves to change and not to be afraid of it. In a quality classroom, where the student-teachers are continuously improving, there is naturally a “change”. Similarly, in a quality classroom where student-teachers are responsible for their own learning, peer assessing, assessing their own work and making joint decisions, there is self improvement.

- **Clearly define on top management’s permanent commitment to ever-improving quality and productivity.** Put everybody in the college of education to work to accomplish the transformation. It all begins and ends here. Without full understanding, belief, action, progress of the top management -the teacher-educator in a classroom situation- none of the previous 13 points can be achieved. The teacher-educators should lead the whole class in the drive for ever improving the quality of every single activity by providing the proper encouragement, training, facilities, and time. The teacher-educators must also accept that they have much to learn and in order to set examples.

**Phillip Crosby (1928-2001)** published his enduring work, *Quality is Free*, (1979) at the height of the American quality crisis in the 1980s when the American manufacturers were losing the market share to the Japanese products largely due to the superiority of the quality of the Japanese products. Crosby’s response to the
quality crisis was “doing it right the first time” (Crosby 1979). His four major principles of quality management were:

1. Quality is defined as conformance to requirements.
2. The system of quality is prevention, not appraisal.
3. The performance standard must be zero defects.
4. The measurement of quality is the price of nonperformance.

It is also applicable in the teacher education institution. Hence student-teachers are to get exposed to quality teaching. The quality teaching has zero defects, which means cent percent perfect. Finally the management shall measure the performance of the teacher-educators through the student-teachers periodically. The management and the teacher-educators may measure the student-teachers performance through examinations. They should find out the weak student-teachers and give special coaching to them and improve their performance.

Joseph M. Juran (1904-2008) considered the father of quality, was the first to incorporate the service quality component into quality management, which he coined as Total Quality Management. Juran defined quality as “those product features which meet the needs of the customers and thereby provide satisfaction” (Juran & Godfrey, 1999). His concepts of the internal customer service, the Pareto principle, and producing products or services that meet the customer’s requirements were well received by the Japanese industry. Juran’s principles of quality effectively infused the “voice of the customer” into all facets of production.

Joseph M. Juran ranks close to Deming in terms of significant contributions to the quality movement. Juran has been most recognized as the person who added the human dimension to quality, broadening it from its
statistical origins. Juran is best known for his three basic steps to progress and the Juran trilogy.

1.2.11. Juran's Three Basic Steps to Progress

The three basic steps to progress are broad steps that Juran feels companies must take if they are to achieve world-class quality. The three basic steps are as follows:

- Achieve structured improvements on a continual basis with dedication and a sense of urgency.
- Establish an extensive training program and
- Establish commitment and leadership on the part of their higher management.

The Juran trilogy summarizes the three primary functions of managers: quality planning, quality control, and quality improvement. Each primary function has several steps.

1. Quality planning

- Determine who the customers are.
- Identity the customer needs.
- Develop products with features that respond to the customer needs.
- Develop systems and processes that allow the organization to produce these features and
- Deploy the plans to operational levels.

2. Quality control

- Assess the actual quality performance.
- Compare performance with goals and
- Act on differences between performance and goals.

3. Quality improvement

- The improvement of quality should be ongoing and continual.
- Developing the infrastructure is necessary to make annual quality improvements.
- Identify specific areas in need of improvement, and implement improvement projects.
- Establish a project team with responsibility for completing each improvement project and
- Provide teams with what they need to be able so as to diagnose the problems, to determine the root causes, develop solutions, and establish controls that will maintain gains made.

Joseph M. Juran’s principles are also implemented in the colleges of education. He suggested three points namely Quality planning, Quality control and Quality improvement as the basic principles of the management. In the institution, the principal has to exercise the above points. Planning and control brings improvements in the institution. Planning and control are discussed in the governing body of the institution.

Armand V Feigenbaum (1993) was the originator of “Total Quality Control”, often referred to as total quality. He defined it as:

“An effective system for integrating quality development, quality maintenance and quality improvement efforts of the various groups within an organization, so as to enable production and service at the most economical levels that allow full customer satisfaction”.

He saw it as a business method and proposed three steps to quality:
- Quality leadership
- Modern quality technology and
- Organizational commitment
Armand V Feigenbaum gives more importance to leadership, technology and commitment. The colleges of education should develop the skill of the leadership among the student-teachers, because they are the tomorrow’s teachers. They require more leadership qualities. During their teaching latest technology should be used. Finally they should commit themselves to their work.

Kaoru Ishikawa (1985) made many contributions to quality, the most noteworthy being his total quality viewpoint, companywide quality control. His emphasis on the human side of quality, the Ishikawa diagram and the assembly and use of the “seven basic tools of quality” are:

- Pareto analysis *which are the big problems?*
- Cause and effect diagrams *what causes the problems?*
- Stratification *how is the data made up?*
- Check sheets *how often it occurs or is done?*
- Histograms *what do overall variations look like?*
- Scatter charts *what are the relationships between factors?*
- Process control charts *which variations to control and how?*

He believed these seven tools should be known widely, if not by everyone, in an organization and used to analyze the problems and to develop improvements. Used together they form a powerful kit.

Kaoru Ishikawa’s approach differs from other Gurus of TQM. His views are based on scientific approach. His views are also based on action research. The student-teachers are facing a number of problems. The teacher-educators should know the problem, find out the causes of the problem and take necessary steps to solve the problems through scientific methods. Thus the Kaoru Ishikawa’s approach is used in the teacher education institutions.
These theories of the quality gurus provide an understanding of quality management, there appears to be no all-encompassing correct approach. The dynamics of the difference in approach by the five quality gurus indicate a need to close the gaps in quality theory and management and sort out what they offer as a whole. There are two main areas of focus, namely (1) the technical dimension of quality and (2) the human dimension of quality. The technical requirements are catered for largely by statistical and quantitative methods incorporating inspection, process control and reliability from design to final product or service delivery by all five quality gurus. The management of the human dimension of the institutions, however, is not at all clearly provided for. The quality gurus declare their interest in the management of people within their differing philosophies and offer a few tangible principles and no common useable methods as is found in the technical dimension.

Now, the researcher points out the applications of Total Quality Management in academics.

The concept of Total Quality Management is applicable to academics. Many educators believe that the Deming's concept of Total Quality Management provides guiding principles for needed educational reform. In his article, "The Quality Revolution in Education," John Jay Bonstingl (2001) outlines the Total Quality Management principles he believes are most salient to education reform. John Jay Bonstingl (2001) calls them the "Four Pillars of Total Quality Management". These are:

1.2.12. Synergistic Relationships

According to this principle, an organization must focus, first and foremost, on its suppliers and customers. In a Total Quality Management organization, everyone is both a customer and supplier; this confusing concept emphasizes "the systematic nature of the work in which all are involved". In other words,
teamwork and collaboration are essential. Traditionally, education has been prone to individual and departmental isolation. However, according to Bonstingl, this outdated practice no longer serves us: "When I close the classroom door, those kids are mine!" is a notion too narrow to survive in a world in which teamwork and collaboration result in high-quality benefits for the greatest number of people. The very application of the first pillar of Total Quality Management to education emphasizes the synergistic relationship between the "suppliers" and "customers". The concept of synergy suggests that performance and production is enhanced by pooling the talent and experience of individuals.

In a classroom, teacher-student teams are equivalent of industry's front-line workers. The product of their successful work together is the development of the student's capabilities, interests, and character. In one sense, the student is the teacher's customer, as the recipient of educational services provided for the student's growth and improvement. Viewed in this way, the teacher and the school are suppliers of effective learning tools, environments, and systems to the student, who is the school's primary customer. The school is responsible for providing for the long-term educational welfare of the students by teaching them how to learn and communicate in high-quality ways, how to access quality in their own work and in that of others, and how to invest in their own lifelong and life-wide learning processes by maximizing opportunities for growth in every aspect of daily life. In another sense, the student is also a worker, whose product is essentially his or her own continuous improvement and personal growth.

1.2.13. Continuous Improvement and Self Evaluation

The second pillar of Total Quality Management applied to education is the total dedication to continuous improvement, personally and collectively. Within a Total Quality school setting, administrators work collaboratively with their customers: teachers. Gone are the vestiges of "Scientific management"... whose
watchwords were compliance, control and command. The foundations for this system were fear, intimidation, and an adversarial approach to problem-solving. Today it is in our best interest to encourage everyone's potential by dedicating ourselves to the continual improvement of our own abilities and those of the people with whom we work and live. Total Quality is, essentially, a win-win approach which works to everyone's ultimate advantage.

According to Deming (1986) no human being should ever evaluate another human being. Therefore, Total Quality Management emphasizes self-evaluation as part of a continuous improvement process. In addition, this principle also laminates to the focusing on students' strengths, individual learning styles, and different types of intelligences.


The third pillar of Total Quality Management as applied in academics is the recognition of the organization as a system and the work done within the organization must be seen as an ongoing process. The primary implication of this principle is that individual students and teachers are less to blame for failure than the system in which they work. Quality speaks to working on the system, which must be examined to identify and eliminate the flawed processes that allow its participants to fail. Since systems are made up of processes, the improvements made in the quality of those processes largely determine the quality of the resulting product. In the new paradigm of learning, continual improvement of learning processes based on learning outcomes replaces the outdated "teach and test" mode.

1.2.15. Leadership

The fourth Total Quality Management principle applied to education is that the success of Total Quality Management is the responsibility of the top management. The school teachers must establish the context in which students can
best achieve their potential through the continuous improvement that results from the teachers and the students working together. Teachers who emphasize content area literacy and principle-centered teaching provide the leadership, framework, and tools necessary for continuous improvement in the learning process.

The Total Quality Management principles help the schools in the following clauses:

- To redefine the role, purpose and responsibilities of schools.
- To improve schools as a "way of life".
- To plan comprehensive leadership training for the educators at all level.
- To create staff development that addresses the attitudes and beliefs of school staff.
- To use research and practice-based information to guide both policy and practice.
- To design comprehensive child-development initiatives that cut across a variety of agencies and institutions.

In order to achieve the above as opportunities to the academic scenario, in addition to patience, participatory management among well-trained and educated partners is crucial to the success of Total Quality Management in education; everyone involved must understand and believe in principles. Some personnel who are committed to the principles can facilitate success with Total Quality Management. Their vision and skills in leadership, management, interpersonal communication, problem solving and creative cooperation are important qualities for the successful implementation of Total Quality Management.

Teacher education is the mother of all professions. If teacher education ensures the quality standard in all its dimensions then the Total Quality Management of all other fields of education can ensure quality standard. The following steps may enhance the quality of teacher education.
- Emphasis on methods of teaching and the art of teaching: The initiative and innovativeness of the teacher and the teaching methods make the process of teaching more interesting and effective, make a lasting impression on a pupils’ mind and, motivate them to learn more.
- Interactive activities like discussions, debates, site visits, teaching through games and videos, the play way method etc. could be used appropriately.
- Globalization demands teachers with competencies to teach in a multicultural environment. Hence the prospective teachers have to be prepared for the same. Prepare a teacher to teach the subjects along with a whole set of skills and an intrinsic culture.
- Internship programme duration is to be increased to one full semester with a sort of sandwich model-student trainees alternate between teacher education colleges and practicing schools.
- Flexibility, openness and creativity are the hall-marks for quality apart from facing the challenges and adapting to changing demands.
- Utilizing web resources for teaching, incorporating appropriate technological tools in the process of teaching-learning, besides giving training in the development of ICT tools, evaluation, managing and maintaining data bases.
- Improvisation of teaching aids makes the teacher more resourceful according to the locally available resources. Practical aspect of this should find a prominent place in the B.Ed., curriculum.
- E- tutoring is the new field with growing need for the Indian teachers of subjects like mathematics, physics. Hence some add-on courses can be planned for the students of mathematics and physics.
- Networking teacher education institutions.
- Assessment of the teacher educators by their peers and evaluation by their student-teachers.
Improving the four components of communication skill assumes topmost priority among the prospective teacher educators i.e. listening, reading, writing, and speaking.

Sensitizing the environmental issues, human rights and values among student-teachers.

Dissemination of research findings in the major areas of research related to the problems of classroom teaching and management and solving student teacher related issues among prospective teacher educator goes a long way in their career.

1.3. Pedagogical Perspectives of Total Quality Management

Pedagogy is defined as the art or science of teaching students. Pedagogy is also sometimes referred to as the correct use of teaching strategies. The main focus of teaching is to facilitate learning. Learning is often defined as relatively permanent change in behavior. Bloom (1956) states that learning by using appropriate teaching strategy like autocratic style such as – lecture, demonstration, tutorials and programme instruction etc., and permissive style – like – question answer, heuristic, project strategy, review, group discussion, role playing, assignment, discovery, computer assisted instruction. Brain storming, independent study, sensitivity training, leaderless group or T-group tends to aim to achieve cognitive, affective and psychomotor goals of education. M.L.Gage (1969) considers that process of teaching and learning must be adopted to each other so as to pay off the best. Education is a tripolar process where learning experiences are provided by teaching activities to achieve the educational objective which leads into change in the behaviors of the students.

Based on the latest development, pedagogy (science of teaching) has become more than activity that conserves valued knowledge and skills by transmitting them to succeeding generation. Therefore, teachers have the
responsibility to challenge the existing structure, practices and definition of knowledge; to invent and test new approaches and where necessary pursue organizational changes in a constant attempt to improve the institution. The pedagogical perspective of Total Quality Management is operated in the following ways in the present investigation:

1.3.1. Learning style

“An individual’s learning style is the way that the person begins to process, internalize and concentrate on new material”. Each person learns in a unique way. There are similarities, of course, but “every person has a learning style – it is as individual as a finger-print” (Gremli 1996).

Learning style describes how a person learns a new information, understanding and retains the skills. Learning style points out how cognitive, affective and psycho motor skills, mostly turn into permanent qualities. It also points out the learners’ attention in the classroom environment and their interaction in understanding. So, learning style is an individual quality which continues steadily in an unperturbed way. So a similar type of teaching may be useful for few students and it may not be so for others. As every learner's handwriting is completely different from one another, everyone's learning style also differs. Therefore, the classroom climate which a teacher creates for the students must enable the learners to think, to refresh and to create meaningful learning. It must create an opportunity for learning through discussion with their friends and with other students. Learning style will reflect on quality management.

1.3.2. Teaching strategy

Strategy is a proper/systematic plan which aims to achieve the goal. In education, strategy means the ability to select suitable approach in teaching by means of using appropriate methods and techniques.
Teaching strategy may well stand for the plans, means and specific way especially devised and employed by the teachers for guiding, directing and showing path to the learners for the realization of the set instructional or teaching learning objectives.

“Teaching strategy is a generalized plan for a lesson which includes structure, desired learner behaviour in terms of goals of instruction and an outline of planned tactics necessary to implement the strategy” (Stones & Morris, 1972).

This is spelt after analysis of the above concepts:

- Stands for a generalized plan, way and means for carrying out the task of teaching i.e. more specifically for teaching a particular lesson
- Directed towards the realization of the set teaching learning objectives
- Devised and employed for helping the learners in the realization of the set teaching learning objectives
- Brings out a scheme, programme or teaching learning structure, which if followed may help in the better realization of the set teaching learning objectives
- Requires a number of well planned tactics (those behaviours and activities of a teacher which he/she works out and makes use of for the development of a particular teaching strategy) for its effective implementation. In that way innovation in teaching strategy will reflect on the quality management.

1.3.3. Infrastructure Facilities

The colleges of education must have sufficient infrastructure facilities. These facilities indirectly help the teacher educators to do their work properly. The
teacher education institution should provide certain facilities for student-teachers like:

- The institution should have sufficient number of class rooms.
- Each class room should be properly ventilated.
- The institution should have a multipurpose hall.
- Separate rest rooms for men and women teacher-educators.
- The institution should have the following laboratories.
  - Audio visual laboratory.
  - Psychology laboratory.
  - Language laboratory.
  - Computer laboratory and other relevant laboratories.
- The institution should have a dining hall and provide safe drinking water.
- Provide indoor game and outdoor game facilities.
- Modern library with updated books.
- Xerox, internet with printing facilities.
- Canteen facilities.
- Separate hostel facilities for men and women with moderate facilities.
- Separate parking facilities.
- Coin phone facilities.
- Medical care facilities.
- Store/shop facilities in the campus.
- Transport facilities and other facilities.

If the teacher education institution provides the above facilities to the student-teachers, automatically it will bring quality in teacher education. Even the teacher education institution has qualified teacher educators without having the above facilities it will not bring quality.
Infrastructure facilities are directly or indirectly help the student-teachers to do their work properly in the teacher educational institutions. The National Council for Teacher Education (NCTE) is also gives more importance to the infrastructure facilities. Before the parents admit their son / daughter in the teacher educational institutions, they must give importance to infrastructure facilities.

1.3.4 Governance of Teacher Education

The National Council of Educational Research and Training (NCERT) is the apex body for curriculum related matters for school education in India. The NCERT provides support and technical assistance to a number of schools in India and oversees many aspects of enforcement of education policies. In India, the various curriculum bodies governing school education system are:

- The state government boards, in which the majority of Indian children are enrolled.
- The Central Board of Secondary Education (CBSE) board.
- The National Institute of Open Schooling (NIOS) board.
- International schools affiliated to the International Baccalaureate Programme and/or the Cambridge International Examinations.
- Islamic Madrasah schools, whose boards are controlled by local state governments, or autonomous, or affiliated with Darul Uloom Deoband.
- Autonomous schools like Woodstock School, Auroville, Patha Bhavan and Ananda Marga Gurukula.

In addition, NUEPA (National University of Educational Planning and Administration) and NCTE (National Council for Teacher Education) are responsible for the management of the education system and teacher accreditation.
The National Council for Teacher Education (NCTE) was set up in 1973 by a Government Resolution as a national expert body to advise the Central and State Governments on all matters pertaining to teacher education. The Council was made a statutory body by an Act of Parliament in 1993.

The primary function of the council is to ensure planned and coordinated development of teacher education and determination and maintenance of its standards. For the performance of this function, the Council lays down norms for specified categories of courses and guidelines for granting recognition to teacher training programmes offered by the various institutions including universities and colleges.

1.3.5. Micro teaching

Teaching constitutes a number of verbal and non-verbal acts. Teaching skill is a set of teaching acts of related behaviors aiming at specific objectives and performed with an intention to facilitate pupils' learning. The teaching skills can be defined, observed, controlled, and measured by means of practice. Microteaching concentrates on the specific teaching skills and gives opportunity for practicing them under controlled conditions.

W. Allen (1968) defines microteaching as a "scaled down teaching encounter in class size and class time". Cliff & others (1970) have defined microteaching as "a teaching procedure, which reduces the training situation to simpler and more controlled encounter achieved by limiting the practice teaching time and class size".

Bush (1969) has defined microteaching as "a teacher education technique which allows the teachers to apply well defined teaching skills to a carefully prepared lesson in a planned series of five to ten minutes encounters with a small group of real class room students".
The aim of teaching is not simply to acquire skills. There is no such thing as 'better skills', for which alone training is given in microteaching. Here again, personality and attitudinal factors are not taken in to consideration. Even more than these the decision making of what skill to use, how to use and how long of it to use, is of importance in teaching. That training is not provided in microteaching. However, microteaching is an innovative teacher-training program, which reduces the complexities of macro teaching and equips the teacher trainee with knowledge and practice of teaching skills.

1.3.6. Teaching practice

One of the essential qualities of a worthy profession in the incorporation of internship into its training programme during which the trainees are given the opportunity demonstrate practically what they have been exposed to in theory, In teacher education programmes, which prepares the trainees for professionalism teaching, an internship programme which is registered as teaching practice. As the name suggests, teaching practice is a course or programme in which the students or trainees are posted to schools, normally lower than their institutions of learning, to teach the student subject areas of their specialization for a specified period. During the period, student-teachers, as they are called, assume the position of normal subject teachers and at the same time engage in all lawful assignments given by the cooperating school authorities.

Teaching practice is important to prospective teachers for many reasons; first it is a vital avenue for developing the skills, attitudes and understanding of the teaching profession. Adeniran (1996) According to him, teaching practice offers an opportunity to test the theoretical ideas which the student-teachers have learnt and it also helps to determine what procedures are appropriate for what categories of students and under what classroom conditions. Hence, teaching practice is conceived by some teacher educators as a necessary laboratory experience (Grims
& Michealis, 1953) an apprenticeship or internship (Martins & Westcott, 1963) which gives the student teacher an opportunity to gain insight into the broad view of teaching. This helps him/her to increase his/her professional competence and to test the applicability of his/her theoretical experience in real classroom situation.

Adelaide (1996) & Adekunle (1996) also opined that the significance of teaching practice including the fact that it enables the student-teachers to organize the syllabus contents around major concepts and generalizations in the development of sequential-learning in a unit or a course of study. It enables student-teachers to become more familiar with variety of instructional materials and resources, evaluate and select those appropriate for the objectives in a teaching unit of a lesson.

While teaching practice provides the trainee an opportunity to acquire practical skills through direct experience, it also provides the trainer the opportunity of both assessing and guiding the trainee for both formative and summative evaluation purposes (Afolabi 1996). Teaching practice enables the teacher educators develop a degree of experience in understanding the student-teachers and their techniques and procedure of teaching which they put into practice under professional guidance and supervision of the teacher-educator.

It is therefore very necessary that a conducive educational environment be established for the student-teachers to enable them to gain confidence in them and to work effectively with fellow students and the school personnel. In such environment, student-teachers will have the opportunity to engage in profitable experiences in observing, sharing and in teaching with the guidance and supervision of the students supervisors or tutors.

Teaching practice is a co-operative venture involving the student-teachers and their Teacher-Educators on one hand and the staff and pupils on the other
hand. The programme includes teaching, demonstration, participation in co-curricular activities and evaluation, which is the final assessment of the student-teachers.

1.4. **Consumer Perspectives of Total Quality Management**

It is a universally accepted truth that the teacher is the maker of a man. The quality and efficiency of education depends to a great extent on the quality of the teacher. Thus proper teacher training programmes will help the teacher to become an enriched, dedicated and committed professional. Over the years the quality of teacher education has deteriorated hence changes in all aspects of teacher education need to be made to face the challenges of the 21st century.

Thus a process for improving the quality of teacher education and quality of products of the educational enterprise is essential and a need of the hour. Assessment and accreditation of educational institutions will certainly enhance academic and educational quality thereby giving us competent, committed and dedicated teachers.

The first step in our quest for quality in education is to decide who the consumers are and what their needs are. Students are the most obvious and primary consumers of a teacher training institution. Others such as employers, community, organizations and governments are also stakeholders and their demands as well as expectations are important to an institution to identify the program and contents. Identification of a process to meet the needs of the consumer is the next step.

A process comprises of sequential steps or activities. It has inputs to which some value is added during the process. These could be tangible and intangible.
In the educational context a raw student entering a teacher training program and passing out as a graduate is the tangible output while syllabus, infrastructure, methodology of teaching and feedback from students/teachers/ employers are the intangible inputs. Each of these inputs has to be carefully examined and standard policies and procedures lay down and executed in a planned way. Periodic checks have to be carried out to ensure reliability and effectiveness. Each of these inputs needs to be seen in detail.

Essential input as well as consumer of the educational process. Admission criteria and the selection process for this input assume importance. Apart from academic achievement of the students, their attitude to studies, acquisition of knowledge, their values and other personal qualities have an enormous influence in the learning process.

The teacher is responsible for transacting knowledge to the students. Competence of the teacher, intellectual skills, emotional skills, maturity, skill in handling students individually and in groups, motivation, aspirations, attitudes and ability to learn values and behavior are some of the inputs that a teacher brings to the learning process. Policies and procedures for recruitment and selection of teachers have to be carefully implemented. Infrastructure Facilities like well equipped lecture rooms, library and method/ language laboratories are important for quality education.

The heart of educational reform is in curriculum and its transaction of academic program, course designing, planning and delivery. It is through the teacher training program that the teacher gets transformed into an enriched, dedicated and committed professional. There is a hue and cry from the educational planners that the existing curriculum in teacher education is outdated, inflexible and does not meet the demands of the contemporary society. Information Technology (IT) has caused many changes in the communication network system.
therefore, teaching at all levels needs to be modern, innovative and concurrent with the latest development to face the emerging changes of the future. This will prepare teachers to meet the local, national and global demands of the current century. Practice teaching continues to be the weakest link of the entire system of teacher education. Micro-teaching needs to be improved in terms of quality and time. Practice teaching does not meet the requirements of the school system, it lacks appropriate blend of theory and practice and fails to develop competencies for becoming an effective teacher. Also a wide gap exists between the teaching competencies in practice and theory. Models of teaching and innovative methods of teaching should be made an integral part of a rigorous training program.

They need to be used in actual classroom situations. Teachers should be trained in Multimedia techniques, Computer Aided Instruction (CAI) and more emphasis on IT needs to be given. Self-learning through action research projects need to be taken up to develop a spirit of inquiry and curiosity in the learner as well as the teacher.

Emphasis on preparation of innovative, economical and attractive teaching aids having utility will certainly enrich and assist in the transaction of learning experiences.

Practical assignments need to be carefully planned and selected so that they are relevant to the core courses and have a direct application in the school situation. Thus accreditation should be primarily concerned with the quality of teacher performance in the classroom.

1.5 Institutional Governance as a Determinant of Total Quality Management

Institutional governance essentially took root in the first phase and continued up to the beginning of the 21st century. Some teacher educators still act
as if there is no other way. In this approach, the institution responsible for the delivery of a teacher education program exercises self-governance. Gideonse (1993) noted that this idea gained credence because a teacher education institution “not only is the place where the preparation needs and conflicts have to be resolved, but also is where the specifics . . . are all supposed to come together”. The downside of this is the potential for both inappropriate and occasional irresponsible use of the autonomy that is granted to the universities. That typically occurs when there is, at best, a highly narrow and idiosyncratic view of what must constitute the program and, at worst, an egregious misunderstanding of tenure and academic freedom for the purpose of self-indulgence.

According to Frederickson & Smith (2003) “Governance refers to the lateral and inter-institutional relations in an administration in the context of the decline of sovereignty, the decreasing importance of jurisdictional borders and a general institutional fragmentation”. Frederickson & Smith, (2003) assert further that, with more emphasis on governance, “the administrative state is now less bureaucratic, less hierarchical and less reliant on central authority to mandate action”.

Academic institutions all over the world are established to provide societal development in respect of knowledge and brainpower enhancement of the people. These institutions are supposed to be the centers of thinking learning and academic training. In fact, these centers provide guidance to the planners, managers, rulers, legal authorities, scientists and researchers. This role of the academic institutions had been in practice since the early civilization of the human race in all parts of the country. Even in ancient times, the countries, which were supposed to be culturally, socially and economically developed, were guided by their academic stalwarts and academic institutions. These institutions provided the thinkers and selfless advisors too many rulers and dynasties. Such institutions have also
provided scientists, philosophers and economists in all societies. They helped in the overall development and raising the standards of human living. This statement is still true in respect of the new generation, societies and countries. In fact, in the most developed countries, the academic institutions are always at the top of their systems. The development of a country can easily be judged by the status and strength of a particular country or a regional unit.

“Institutional Governance can concur as the administration of an academic institution. It is very pertinent and important to run any academic institution efficiently and meaningfully in such a manner that the main objectives of the institutions are fulfilled. Therefore, the governance and administration of an academic institution is meant to make that institution dynamic and to provide full academic freedom to the main units of the organization. The administration should also facilitate the smooth functioning and recording the transparency and answerability of the organization. In fact, the administration of such organizations should not only work in most subdued manner but also as a service sector. The aim of the administration should be to tap the academic ability and expertise of its experts so that the institution becomes the lighthouse for the people and the human sectors around” (Saxena 2001).

The administrative part is dominating and having an upper hand. Which teacher education has Institutional Governance, there we can expect good administrative structure, good infrastructure facilities, common admission procedure of the student-teachers and they appoint qualified staff etc., the head of an academic institution plays a key role in the administrative and other affairs of the institution.

In view of the above, it is very pertinent and important to run any academic institution efficiently and meaningfully in such a manner that the main objectives of the institutions are fulfilled. Therefore, the governance and administration of
academic institutions meant to make that institution dynamic and to provide full academic freedom to the main units of the organization. The administration should also facilitate the smooth functioning and recording the transparency and answerability of the organization. In fact, the administration of such organizations should not only work in most subdued manner but also as a service sector. The aim of the administration should be to tap the academic ability and expertise of its experts so that the institution becomes the lighthouse for the people and the human sectors around.

Many academic institutions, including universities particularly in India, are having imbalances in terms of its administration and management sector. In many such places, the administration part is dominating and having an upper hand. Such organizations look very attractive and presentable but their academic pursuits are put in to background. Similarly, there are institutions in which the administration sector is weak and inefficient. This also hampers the main activities of the academic institution. Therefore, a balance is necessary and the administration part should be optimum and directed.

‘Governance’ begins from the policy decisions of the governing body i.e. the Management Council (or Executive Council), to finally ensuring smooth services and intended benefits to reach all the stake-holders. This is highly demanding in the society of teachers and students with government and public in general watching delivery and fairness. What is important is the composition and expertise of members of this highest governing body of his system and what policies it frames. Currently, in general the council consists of faculty members who are ‘internal’ and some ‘external’ members representing the government interests and policies and nominees of the Governor-Chancellor mostly from the academic world. Structurally, in general, there is really no third group from the open market with specializations such as business, industry, financial institutions
etc whose participation could enrich the decision making process. It is necessary to remember that the Management Council is for governance and not for only academic purposes, for which the Academic Council functions, although the former are also required to deal with academic matters but the latter is always there to advice the Council.

Successful operation of an educational institution requires competent administrators. The administrators provide instructional leadership and manage the day-to-day activities in schools, preschools, day care centers, and colleges and universities. They also direct the educational programs of businesses, correctional institutions, museums, and job training and community service organizations.

The administrators set educational standards and goals and establish the policies and procedures required to achieve them. They also supervise the managers, support the staff, teachers, counselors, librarians, coaches, and other employees. They develop academic programs, monitor students’ educational progress, train and motivate teachers and other staff, manage career counseling and other student services, administer recordkeeping, prepare budgets, and perform many other duties. They also maintain relations with parents, prospective and current students, employers, and the community. In a smaller organization such as a small day care center, one administrator may handle all these functions. In the universities or large school systems, responsibilities are divided among many administrators, each with a specific function.

In colleges and universities, provosts, also known as chief academic officers, assist the presidents, make faculty appointments and tenure decisions, develop budgets, and establish academic policies and programs. With the assistance of academic deans and deans of faculty, provosts also direct and coordinate the activities of deans of individual colleges and chairpersons of academic departments. Fundraising is the chief responsibility of the director of
development and also is becoming an essential part of the job for all administrators.

College or university department heads or chairpersons are in charge of the departments that specialize in particular fields of study, such as English, biological science, or mathematics. In addition to teaching, they coordinate schedules of classes and teaching assignments; propose budgets; recruit, interview, and hire applicants for teaching positions; evaluate faculty members; encourage faculty development; serve on committees; and perform other administrative duties. In overseeing their departments, chairpersons must consider and balance the concerns of faculty, administrators, and students.

Higher education administrators also direct and coordinate the provision of student services. Vice presidents of student affairs or student life, deans of students, and directors of student services may direct and coordinate admissions, foreign student services, health and counseling services, career services, financial aid, and housing and residential life, as well as social, recreational, and related programs. In small colleges, they may counsel students. In larger colleges and universities, separate administrators may handle each of these services. Registrars are the custodians of students’ records. They register students, record grades, prepare student transcripts, evaluate the academic records, assess and collect tuition and fees, plan and implement commencement exercises, oversee the preparation of college catalogs and schedules of classes, and analyze the enrollment and demographic statistics. Directors of admissions manage the process of recruiting, evaluating, and admitting students, and work closely with financial aid directors, who oversee scholarship, fellowship, and loan programs. Registrars and admissions officers at most institutions need computer skills because they use electronic student information systems. For example, for those whose institutions present college catalogs, schedules, and other information
on the Internet, knowledge of online resources, imaging, and other computer skills is important. Athletic directors plan and direct intramural and intercollegiate athletic activities, overseeing the publicity for athletic events, preparing budgets, and supervising coaches. Other increasingly important administrators direct public relations, distance learning, and technology.

The administrators hold leadership positions with significant responsibility. Most find working with students extremely rewarding, but as the responsibilities of administrators have increased in recent years, so has the stress. Coordinating and interacting with faculty, parents, students, community members, business leaders, and State and local policymakers can be fast paced and stimulating, but also stressful and demanding. The principals and assistant principals, whose duties include disciplining students, may find working with difficult students challenging. They are also increasingly being held accountable for their schools meeting state and federal guidelines for student performance and teacher qualifications.

The indicators of Institutional Governance identified by the present study such as administration, governing body, infrastructural facilities, instructional facilities, innovative educational practices, decision-making, research and development, community services, budget, finance committee and communion with local bodies can be the determining factors of TQM of any teacher education institution. Hence the Institutional Governance can be one of the paramount or hub of TQM.

1.6 Need for the Study
This is an era of quality. Quality education gives human being perfection in life. Quality is excellence, Quality is satisfying. Quality is the best, Quality is the standard, Quality is efficiency and Quality is a never ending journey. Quality education is that which enhances the Quality of life.
The very purpose of teacher education is to produce teachers who have professional competencies. Because teacher education is meant for preparing future teachers who will lead the society and the nation, the responsibility of teacher education increases manifold. Now the role of teachers is no longer confined to teaching alone. They need to be thoroughly professionals, fully equipped with high academic standards, pedagogical and practical skills and ethical values.

At present teaching community is facing lots of challenges thrown by science and technology. There has been an explosion not only of scientific and technological knowledge but also in the means and techniques of acquiring knowledge. It is an urgent need to verify whether the teacher education programme is successful enough in preparing the future teachers to meet the challenges of science and technology.

One of the most important aims of teacher education is to develop an understanding of the children and a healthy attitude towards the all round development of student personality. Identifying the interests and abilities of the students and satisfying the needs of all the students is the major responsibility of the teachers. The student-teachers are to be equipped with the theoretical knowledge and the needed practical skills for the above mentioned task during the B.Ed programme.

The quality of classroom teaching in the schools depends upon the quality of education of teachers. On the one hand the quality of education of teachers depends upon the knowledge of subject matter and on the other hand knowledge pedagogy and its application to day- to-day classroom teaching depends on the knowledge and skills acquired by the student-teachers during their B.Ed programme.
Teaching is the complex art and it depends on many factors. The quality of education and the standards of achievement are inseparably interrelated with the quality of the teacher. A positive favorable attitude makes the work harder, more tedious and unpleasant. In order to get job satisfaction, a favorable attitude towards teaching profession should be developed in the student-teachers. Therefore, it is imperative to ascertain whether the B.Ed programme is successful in developing a favorable attitude towards teaching profession.

A teacher education institution is a place where quality training must be given to the future teacher educators. Hence it is important to define well the concept of Total Quality Management of teacher education institutions. The present study attempts to define well the concept of Total Quality Management by means of administration, infrastructure facilities, instructional facilities, evaluation, recreational facilities, research and development, guidance and counseling, community services, discipline, placement cell, scholarships and alumni association. The quantum of studies reviewed reveals that Total Quality Management and Institutional Governance affect each other. Hence the present study makes its attempts to ascertain the Total Quality Management and the Institutional Governance of the minority and the non-minority colleges of education in Puducherry. It is an assumption that minority teacher education institutions may have better value of Total Quality Management and Institutional Governance than that of the non-minority institutions.

Ultimately, the investigation will pave the way for these institutions to understand their strengths and the weaknesses of Total Quality Management and Institutional Governance where they have to improve upon. Also the findings of the investigation will throw some light to come out with the tangible recommendations for policy decisions.
1.7 **Significance of the Study**

Quality education only changes the human propensities to evolve the inner potentialities till the last breath, a process that covers the human journey from *womb to the tomb*.

To utilize Total Quality Management and Institutional Governance, fully the brain power of each and every learner must be used. As a company produces quality goods and satisfies its customers, the teacher education institutions are to produce student-teachers. The educational institutions will have to supply effective learning tools, environments and systems to the learners.

The present study ascertains and compares the Total Quality Management of the minority and the non-minority colleges of education. The institution which adopts Total Quality Management in its overall performance like admission, micro-teaching, teaching practice, tests, guidance and counseling, co-curricular activities etc., is valued to be better than the institution which does not adopt Total Quality Management.

In the institution which adopts Total Quality Management, there is a mutual understanding and good relationship among the principal, the teacher-educators, the student-teachers and the parents. The mutual understanding and good relationships easily achieve the common goal of the educational institution.

At the same time, Institutional Governance also plays a vital role in the colleges of education. In the educational institution, the principal is the head. He has all the powers. He is the overall administrator of the educational institution. He is answerable to the teacher-educators, the student-teachers and the parents. The principal should delegate some powers to the teacher-educators. Thus the teacher-educators can take day-today decisions. The study clearly points out that
the institution which adopts total quality management and institutional governance, can achieve its goal.

In view of this, the researcher has felt the need for studying the factors that are affecting the Total Quality Management and the Institutional Governance of the minority and the non-minority colleges of education in Puducherry. The teacher education institutions, its scope is spelt in the following aspects:

The Total Quality Management of teacher education institution is attempted by the perceptions of the teacher-educators, student-teachers and parents.

The different aspects of Total Quality Management perceived by the teacher-educators, student-teachers and parents were identified for the development of research instruments in Total Quality Management.

The different aspects of institutional governance of the teacher education institution perceived by the respective principals were identified for the development of research instrument in Institutional governance.

The extent of impact of institutional governance on Total Quality Management in a teacher education institution was to pave the way to these institutions to understand the relationship between Institutional Governance and Total Quality Management.

As the study attempted to ascertain the Total Quality Management and Institutional Governance of minority and non-minority teacher education institutions, both the type of teacher education institution will have to compare their strengths and the areas where they have to improve upon.

1.8 Statement of the Problem

Defining quality in education is a massive challenge since it deals with the most sensitive creation on earth- the human being. Industrial products are finished
goods taken them or leave them. Education has no such finished product. Education only charges the human propensities to evolve and unfold it till the last breath, a process that covers the human journey from “womb to tomb”. Human beings continue to learn, and evolve, “to be” (Mukhopadhyay 2006). Education is goal oriented. Accordingly, quality of education has been seen with reference to excellence in education, value addition in education (Feigenbaum 1983), fitness of educational outcome and experience for use (Juran & Gryna 1988), conformance of education output to planned goals, specifications and requirements (Crosby 1979), defect avoidance in education process (Crosby 1979), and meeting or exceeding customer’s expectation of education (Parasuraman 1985). Holt (2000) argues that whether education is concerned with the development that of the minds of the pupils; school produces educated persons who, by virtue of their schooling, to be construed. Commitment to quality makes students proud to learn and work hard for improvement. Quality improvement is a never ending process. Educational quality leads to a prospective future. Hence, insight on quality indicates that virtual implementation need to be given top priority and attention should be paid to the category in the wide range of educational strata e.g. school, university, educational management and the staff.

“Total Quality Management is a management philosophy that builds a customer-driven, learning organization dedicated to total customer satisfaction through continuous improvement in the effectiveness and efficiency of the organization and its processes” (Corrigan 1995). Total Quality Management provides a structured and comprehensive delivery system which may lead improvements in education” (Weller & Hartley, 1994). Total Quality Management recognizes students as both customers and employees of the education system” (Weaver 1992). Therefore, the roles of students must be recognized by involving them in their own learning process. Furthermore, students’ evaluation in Total
Quality Management is very important and should be carried out throughout their studies so that corrective measures may be enforced continuously (Weaver 1992).

It cannot be denied that Institutional Governance plays a key role in promoting total quality management of an institution, as Institutional Governance is a system through which all educational functions accountable for continually improving the quality of education, and for achieving high and sustainable standards of education. In that way, the present study is the blend of Total Quality Management and Institutional Governance which has also attempted to determine the influence of Institutional Governance on Total Quality Management.

The number of teachers and teacher education institutions in our country has grown manifold during the last few decades. But teacher education programmes have not changed much and are therefore under severe criticism for being static and respective to the emerging challenges of the present programme if we try to make changes it will be of no use. Thus in order to find out the strength and weakness of the present B.Ed programme an evaluation is necessary.

Moreover various education commissions, committees and policymakers have suggested certain objectives of teacher education programme. Any programme is good if and only if its objectives are achieved. Hence, it is to evaluate whether it is possible to achieve the objectives of teacher education at the end of the B.Ed programme.

Hence, the teacher education programme is severely criticized from all sides. In order to avoid the criticisms, the teacher education institution needs to overhaul the administration in all levels, and also introduce quality in each activities of the teacher education institution. It is in this way, the present study makes its attempt Total Quality Management and Institutional Governance in the teacher education institutions.
1.9 Chapterization

The researcher has planned to divide the present study into five chapters. The first chapter on introduction and conceptual framework is dealt with Historical backdrop of the study, The development of total quality management, the concept of quality, historical review of total quality management with special reference to teacher education, applying total quality management in academics, pedagogical perspectives of total quality management, consumer perspectives of total quality management, institutional governance, need for the study, significance of the study and statement of the problem.

The second chapter is concerned to the review of related literature. The review of some past researches has been given in this chapter, the synthesis of review and insights gained from the related literatures.

The third chapter is based on research method and the procedure is dealt with the design of the study, tools used in this study, sample of the study, objectives of the study, hypotheses of the study and the background variables used in this study.

The fourth chapter describes about the analysis and interpretation.

The fifth chapter gives the summary of the findings, discussion, implications, recommendations and conclusion.
CHAPTER -II
REVIEW OF RELATED LITERATURE

2.1. Introduction

The survey of related literature implies locating studying and evaluating the reports of relevant researches study of published articles and going through the related portions of research abstracts.

“A summary of the writings of recognized authorities and of previous research provides evidence that the researcher is familiar with what is already known and what is still unknown and untested because effective research is based on past knowledge. This step helps to eliminate the duplication of what has been done and provides useful hypothesis and helpful suggestions for significant investigation. Citing studies that show substantial agreement and those that seem to present conflicting conclusions help to sharpen and define and understanding of existing knowledge in the problem provides a background for research project and makes the reader aware of the status of the issue” (John W Best 2007).

Mouly (1978) commented about review of related literature as which promotes a greater understanding of the problem and its crucial aspects and ensures the avoidance of unnecessary duplication.

2.2. The specific purposes of related literature are:

- It helps to define the limits of his / her fields and brings the researcher up-to-date information about what had been done in that particular area.
- It promotes ideas, theories, explaining hypothesis or methods of research, valuable in formulating and studying the problem.
- The insights into the methods, measures etc., employed by others will lead to significant improvement of the research design.