

TOTAL QUALITY MANAGEMENT IN HIGHER EDUCATION: A REVIEW

Dr. Arjun Chandra Das, Assistant Professor,
Department of Education, University of Kalyani, Kalyani, Nadia, W.B.

Abstract: Quality has become a defining element of education in the 21st century in the context of new social realities. The information communication revolution, the knowledge economy and globalization are greatly influencing the 'next society'. How to provide quality education to large numbers at affordable costs is the primary concern of developing countries. Quality makes education as much socially relevant as it is personally indispensable to the individuals. In this sense, quality becomes the defining element of education. In this context, quality and excellence should be the vision of every higher education institution including teacher education. Acquisition of quality and excellence is the great challenge faced by all higher education institutions.

Key words: *Quality education, TQM, Education management, Deming's 14 principles etc.*

INTRODUCTION:

Total Quality Management (TQM) is a management approach that originated in the 1950's and has steadily become more popular since the early 1980's. Today the institutions of higher education are expected to perform roles drastically different from the ones for which they were established. Present day seekers of higher education look for educational programmes with specific objectives that would add value to their services in the national and international work places. This demand of higher education with higher levels of aspiration poses new challenges to the universities that provide educational leadership to the colleges and the research centers affiliated to them. TQM has evolved as an overriding concept in the field of quality in recent years. It is a philosophy that subsumes earlier methods of inspection, quality control and quality assurance. TQM assumes that quality is the consumer of the service/ product perceives. The concept of TQM though borrowed from the industry has worked wonders for educational institutions across the globe. The open and in-house training programmes aim at spreading awareness on "Quality in education". All training programmes are designed, developed and delivered on the basis of Total Quality Management principles and practices. TQM works on the premise of continuous improvement. The objectives of the training sessions are to help institutions understand and imbibe the concepts of quality and its applicability in the Education sector. Institutions will adopt a process approach to Excellence. The key to the success of initiatives like TQM in Education is continued support, whole-hearted involvement and commitment from all members in the institution, right from the top management. Modern History of Quality Management is the first Frederick W. Taylor wrote Principles of Scientific Management in 1911. Walter A. Shewhart used statistics in quality control and inspection, and showed that productivity improves when variation is reduced (1924); wrote Economic Control of Manufactured Product in 1931. W. Edwards Deming and Joseph M. Juran, students of Shewhart, went to Japan in 1950; began transformation from 'shoddy' to 'world class' goods. In 1960, Dr. K. Ishikawa formalized 'quality circles' the use of small groups to eliminate variation and improve processes. In the late '70's and early '80's Deming returned from Japan to write Out of the Crisis, and began his famous 4-day seminars in the United States. Phil Crosby wrote Quality is Free, if Japan can do it, why can't we? Motorola began Sigma concept for quality management.

OBJECTIVES OF THE PRESENT REVIEW:

- a) To know the concept, characteristics and principles of Quality.
- b) To explore the word Management and Education Management.
- c) To explain the Total Quality Management in Education.
- d) To overview the Deming's 14 basic principles of TQM and its deadly diseases.
- e) NAAC and Quality Management in Indian Higher Education.

METHODOLOGY OF THE DISCUSSION:

We know there are different types of methodology for any study. Here the historical method of research/study is used. In the present study and the approach is qualitative in nature. The work has been conducted in the following ways:

- Collection of primary and secondary sources
- Detailed of the reliable and valid sources
- Comparison of different sources
- Making generalization from the sources.

SOURCES OF THE DATA:

Here two Types of data were collected. These were:

I. Primary sources of Data: Interviewed with the hearing impaired.

II. Secondary Sources of Data: Different types of books of special education

DISCUSSION AND ANALYSIS OF THE ABOVE OBJECTIVES:**❖ CONCEPT OF QUALITY:**

- a) Quality should be a part of our soul. It is perceived differently by different people. Quality is not something that is bestowed by others; it is attained and maintained as a result of ceaseless efforts. Quality of a product may be good for one but not for another.
- b) Quality refers to basic and essential character, the distinguishing element or characteristic of a product, service, organization or entity. Consumers look at these elements in deciding whether or not to buy particular products or services.
- c) “Quality is the degree of excellence”.—The Oxford English Dictionary
- d) “Quality is a state of mind... the relentless pursuit of excellence, of never being satisfied with what you do, how you do it and how quickly you do it. There is always room for improvement. Everything can always be done better”.—Jan D Timmer
- e) “Quality often is not measured at all, but is appreciated intuitively. One’s response to quality is a feeling, a perception that is connected intimately with our experience of meaning, beauty and values in our lives”—Bennis
- f) “Quality is fitness of purpose”—Juran [Something is of good quality if it satisfies one’s need.
- g) “Quality is a state of mind... the relentless pursuit of excellence, of never being satisfied with what you do, how you do it and how quickly you do it. There is always room for improvement. Everything can always be done better”. —Jan D Timmer
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- i) “Quality is fitness of purpose”. -Juran [Something is of good quality if it satisfies one’s need.

CRITERIA OF QUALITY:

- a) **Conformance to specifications:** How well a product or service meets the targets and tolerances determined by its designers?
- b) **Fitness for use:** A definition of quality that evaluates how well the product performs for its intended use.
- c) **Value for price paid:** Quality defined in terms of product or service usefulness for the price paid.
- d) **Support services:** Quality defined in terms of the support provided after the product or service is purchased.
- e) **Psychological criteria:** A way of defining quality that focuses on judgemental evaluations product or service excellence.

CHARACTERISTICS OF QUALITY:

- i) Quality is a matter of perception, not logic; ii) Quality is relative and not absolute; iii) Quality is subjective; iv) Quality is a contextual idea; v) Quality can be measured inferentially; vi) Quality is attainable and vii) Quality is applicable to the system and its parts.

PRINCIPLES OF QUALITY:

- i) Customer focus; ii) Leadership; iii) Involvement of people; iv) Process approach; v) System approach to management; vi) Continual improvement; vii) Factual approach to decision making and iii) Mutually beneficial supplier relationship.

CONCEPT OF MANAGEMENT:

- a) Management can be defined as an effort for getting things done in order to achieve the pre-determined goal of the concern through coordination of human and other elements.

- b) “To manage is to forecast and plan, to organise, to command, to coordinate and to control”. —Henri Fayol
- c) “Management is a distinct process, consisting of planning, organising, activating and controlling performed to determine and accomplish the objectives by the use of human beings and other resources”. —G.R. Terry
- d) “Management is a multi-purpose organ that manages a manger and manages workers and work”. —P. Drucker
- e) “Management is guiding human and physical resources into dynamic organisation units which attain their objectives to the satisfaction of those served and with a high degree of morale and sense of attainment on the part of those rendering service”. —American Management Association
- f) “Management is simply the process of decision making and control over the actions of human beings for the express purpose of attaining pre-determined goals”. —S. Vance

CONCEPT OF EDUCATIONAL MANAGEMENT:

- “Thus management of education or educational management implies the practical measures for ensuring the system to work for achieving the goals or objectives of an educational institution”. —P.K. Mishra
- “Management of education is the process of planning, organizing, directing and controlling the activities of an institution by utilizing human and material resources so as to effectively and efficiently accomplish functions of teaching, extension work and research”. —S.R. Pandya

MAIN IDEA OF EDUCATIONAL MANAGEMENT:

i) Setting directions, aims or objectives of educational organisations or institutions; ii) Planning for progress of the programme; iii) Organising available resource-people, time and material; iv) Controlling the implementing process and v) Setting and improving organisational standards.

❖ CONCEPT OF TOTAL QUALITY MANAGEMENT:

- a) Total Quality Management (TQ, QM or TQM) are sweeping “culture change” efforts to position a company for greater customer satisfaction, profitability and competitiveness.
- b) TQM may be defined as managing the entire organization so that it excels on all dimensions of products and services that are important to the customer.
- c) We often think of features when we think of the quality of a product or services; Total Quality is about conformance quality, not features.
- d) Total Quality Management (TQM) is an integrated effort designed to improve quality performance at every level of the organization or institution.
- e) “TQM is a management process and set of disciplines that are coordinated to ensure that the organization consistently meets and exceeds customer requirements”. --Perter Capezio and Debra Morehouse
- f) “TQM is a plan and strategy to extend quality control efforts to every function of the company/institution”. —Richardson
- g) The term ‘Total’ in Total Quality Management means that everyone participates and that it is integrated into all business functions
- h) Quality means meeting or exceeding customer (internal or external) expectation.
- i) Management means improving and maintaining business or institutional systems and their related processes or activities.

Total Quality Management is...

- i) Meeting Our Customer’s Requirements; ii) Doing Things Right the First Time; Freedom from Failure (Defects); iii) Consistency (Reduction in Variation); iv) Continuous Improvement and v) Quality in Everything We Do.

Principles of TQM:

1. **Customer satisfaction:** The basis of the programme should include in every activity, process, and product a quality mind-set and a quality orientation.
2. **Continuous improvement:** It should bring about quality in the way employees are involved, treated, and motivated by developing a strongly humanistic setting.
3. **Respect for people:** The programme has to allow empowerment at all levels.
4. **Managing with information and analysis:** Applying the implementation of any philosophies relating to total quality management should be holistically so that all aspects of the plan reach every individual (Creech,1994, p.5)

Components of TQM:

1. **Customer:** The customer is anyone, internal or external, who receives or is affected by the product, process or services.
2. **Continuous improvement:** Continuous improvement is essential to reach the stage of “zero defects”.
3. **Training and Development:** Faculty development should ensure diligent updating at par with state of the art.
4. **Teamwork:** Teamwork and stakeholders involvement are the key to achieve TQM.
5. **Measurement:** Monitoring progress with review of objectives is a necessary corollary.

NEED FOR QUALITY EDUCATION:

1. **Dynamic Curriculum:** To provide quality education there should be a dynamic curriculum, which brings knowledge and skill to the technical education aspirants to equip themselves to meet the global needs and challenges.
2. **Continuous Improvement:** The TQM will enable the integration of all functions and processes within an educational environment to achieve continuous improvement to provide customer oriented quality services.
3. **Research:** The need of research in TQM, in various issues of education are teaching learning process, curriculum design and development, quality in education, stakeholders’ participation in academic matters, methods of student evaluation and assessment, skills and knowledge required for the graduates (all level), industry requirements and customer satisfaction.

PRODUCT QUALITY DIMENSIONS:**Garvin (1987) proposed the quality in eight dimensions:**

- a) **Performance:** It is concerned with the primary operating characteristics of a product. In higher education performance is the ability expected of a graduate.
- b) **Futures:** It is the characteristics that supplement the basic performance functions. In higher education flexibility of course offering could be a future.
- c) **Reliability:** It can be considered as to what extent the knowledge gained is correct, and up-to-date.
- d) **Conference:** It is the extent to which a product meets the established specification/standard. For higher education, it can be defined as the extent of meeting the established educational standards and its own promises to the client.
- e) **Durability:** It is the product’s assumed life to perform satisfactorily. In higher education, it can be defined as the depth of learning.
- f) **Serviceability:** It is concerned with the repair and field service of the product. In higher education it is concerned with handling of complaints from students, staff and others, Some also emphasize the continuous updating of their alumni as evidenced by professionals like the C.As through their magazines, newsletters and continuing education to provide after training service.
- g) **Aesthetics:** In this context of product, it is concerned with the design, looks, colour and presentation, and how the customer views it.

- h) **Perceived:** Perceived quality is yet again subjective like aesthetics and customers opinion is more appropriate in service quality dimension. For a product too, through branding, the customer perceives a certain degree of confidence on quality.

Basic Principles of TQM

1. Approach > Management; 2. Scale > Everyone is responsible; 3. Philosophy > Prevention; 4. Standard > Right First; 5. Control > Cost of; 6. Theme > Ongoing

Basic Steps in TQM:

- i. Planning; ii) Organization; iii) Executing; iv) Evaluation; v) Feed Back and vi) Bench marking

Advantages of TQM:

- i) To provide quality assurance; ii) Continuous improvement; iii) Meeting standards; iv) Establish performance; v) Problem solving tool; vi) Reliability; vii) Maintain human relationship among inside and outside members; viii) Employees participation; ix) Team work and x) To build image of the institution.

❖ DEMING'S 14 POINTS (A NEW PHILOSOPHY OF MANAGEMENT):

1. Create a constant purpose toward improvement:

- a) Plan for quality in the long term;
- b) Resist reacting with short-term solutions;
- c) Don't just do the same things better-find better things to do;
- d) Predict and prepare for future challenges and always have the goal of getting better

2. Adopt the new philosophy:

- a) Embrace quality throughout the organization;
- b) Put your customers' needs first, rather than react to competitive pressure—and design products and services to meet those needs;
- c) Be prepared for a major change in the way business is done. It's about leading, not simply managing;
- d) Create your quality vision and implement it.

3. Stop depending on inspections:

- a) Inspections are costly and unreliable—and they don't improve, they merely find a lack of quality;
- b) Build quality into the process from start to finish;
- c) Don't just find what you did wrong—eliminate the 'wrongs' altogether;
- d) Use statistical control methods— not physical inspections alone – to prove that the process is working.

4. Use a single supplier for any one item:

- a) Quality relies on consistency– the less variation you have in the input; the less variation you'll have in the output;
- b) Look at suppliers as your partners in quality. Encourage them to spend time improving their own quality– they shouldn't compete for your business based on price alone;
- c) Analyse the total cost to you, not just the initial cost of the product;
- d) Use quality statistics to ensure that suppliers meet your quality standards.

5. Improve constantly and forever:

- a) Continuously improve your system and processes. Deming promoted the **Plan-Do-Check-Act** approach to process analysis and improvement;
- b) Emphasize training and education so everyone can do their jobs better;
- c) Use **Kaizen** as model to reduce waste and improve productivity, effectiveness and safety.

6. Use training on the job:

- a) Train for consistency to help reduce variation;
- b) Build a foundation of common knowledge;
- c) Allow workers to understand their roles in the big picture;
- d) Encourage staff to learn from one another and provide a culture and environment for effective teamwork.

7. Implement leadership:

- a) Expect your supervisors and managers to understand their workers and the processes they use;
- b) Don't simply supervise—provide support and resources so that each staff member can do his/her best. Be a coach instead of a policeman;
- c) Figure out what each person actually needs to do his/her best;
- d) Emphasize the importance of participative management and transformational leadership;
- e) Find ways to reach full potential, and don't just focus on meeting targets and quotas.

8. Eliminate fear:

- a) Allow people to perform at their best by ensuring that they're not afraid to express ideas or concerns;
- b) Let everyone know that the goal is to achieve high quality by doing more things right—and that you're not interested in blaming people when mistakes happen;
- c) Make workers feel valued and encourage them to look for better ways to do things;
- d) Ensure that your leaders are approachable and that they work with teams to act in the company's best interests and
- e) Use open and honest communication to remove fear from the organization.

9. Break down barriers between departments:

- a) Build the internal customer concept—recognize that each department of function serves other departments that use their output;
- b) Build a shared vision;
- c) Use cross-functional teamwork to build understanding and reduce adversarial relationships and
- d) Focus on collaboration and consensus instead of compromise.

10. Get rid unclear slogans:

- a) Let people know exactly what you want—don't make them guess. "Excellence in service" is short and memorable, but what does it mean? How is it achieved? The message is clearer in a slogan like "You can do better if you try".
- b) Don't let words and nice-sounding phrases replace effective leadership. Outline your expectations and then praise people face-to-face for doing good work.

11. Eliminate management by objectives:

- a) Look at how process is carried out, not just numerical targets. Deming said that production targets encourage high output and low quality;
- b) Provide support and resources so that production levels and quality are high and achievable and
- c) Measure the process rather than the people behind the process.

12. Remove barriers to provide of workmanship:

- a) Allow everyone to take pride in their work without being rated or compared and
- b) Treat workers the same, and don't make them compete with other workers for monetary or other rewards. Over time, the quality system will naturally raise the level of everyone's work to an equally high level.

13. Implement education and self-improvement:

- a) Improve the current skills of workers;
- b) Encourage people to learn new skills to prepare for future changes and challenges and
- c) Build skills to make your workforce more adaptable to change, and better able to find and achieve improvements.

14. Make 'transformation' everyone's job:

- a) Improve your overall organization by having each person take a step toward quality;
- b) Analyse each small step, and understand how it fits into the larger picture and
- c) Use effective change management principles to introduce the new philosophy and ideas in Deming's 14 points.

Deming's system for leadership approach to Quality:

1) The System of Profound Knowledge; 2) The Plan-Do-Check-Act Cycle; 3) Prevention by Process Improvement; 4) The Chain Reaction for Quality Improvement; 5) Common Cause and Special Cause Variation; 6) The 14 Points and 7) The Deadly and Dreadful Diseases.

Seven Deadly Diseases by E. Deming:

- 1) Lack of constancy of purpose; 2) Emphasis on short-term profits; 3) Evaluation by performance, merit rating or annual review of performance; 4) Mobility of management; 5) Running a company on visible figures alone; 6) Excessive medical costs and 7) Excessive costs of warranty, fuelled by lawyers who work for contingency fees.

Middle States Commission of Higher Education, Philadelphia, USA, 2009:

“Characteristics of Excellence in Higher Education”, a book by the above commission mentioned two dimensions for the Excellency in Higher Education are:

1. Institutional Context and
2. Educational Effectiveness.

INDIAN QUALITY MONITORING AGENCIES:

The Department of Higher Education and MHRD carries out substantial part of its work through about 90 autonomous organizations, mainly viz., UGC; NAAC; NCTE; NUEPA; NCERT etc.

National Assessment and Accreditation Council (NAAC):

1. Vision and Mission of NAAC:
 - a) **Vision:** To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.
 - b) **Mission:**
 - i) To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects;
 - ii) To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;
 - iii) To encourage self-evaluation, accountability, autonomy and innovations in higher education;
 - iv) To undertake quality-related research studies, consultancy and training programmes, and
 - v) To collaborate with other stakeholders of higher education for quality education, promotion and sustenance.

Core Values of NAAC:

- a) Contributing to National Development;
- b) Fostering Global Competencies among Students;
- c) Inculcating a Value System in Students;
- d) Promoting the use of Technology and
- e) Quest for Excellence.
- f)

NAAC and its IQAC:

a) The NAAC, Bangalore proposes that every accreditation institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance; b) According to NAAC quality enhancement is a continuous process, the IQAC will become a part of the institution's system; c) The IQAC will work towards realisation of the goals of quality enhancement and sustenance; d) The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the overall performance of institutions.

Strategies of IQAC:

- a) Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks; b) The relevance and quality of academic and research programmes; c) Equitable access to and affordability of academic programmes for various sections of society; d) Optimization and integration of modern methods of teaching and learning; e) The credibility of evaluation procedures; f) Ensuring the adequacy, maintenance and functioning of the support structure and services and g) Research sharing and networking with other institutions in India and abroad.

Functions of IQAC and NAAC:

- a) Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution; b) Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process; c) Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes; d) Dissemination of information on various quality parameters of higher education; e) Organisation of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles; f) Documentation of the

various programmes/activities leading to quality improvement; g) Acting as a nodal-agency of the institution for coordinating quality-related activities, including adoption and dissemination of best practices; h) Development and maintenance of institutional database system for the purpose of maintaining/enhancing the institutional quality; i) Development of Quality Culture in the institution and j) Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC.

Benefits of IQAC and NAAC:

- a) Ensure heightened level of clarity and focus in institutional functioning towards quality enhancement; b) Ensure internalisation of the quality culture; c) Ensure enhancement and coordination among various activities of the institution and institutionalize all good practices; d) Provide a sound basis for decision-making to improve institutional functioning; e) Act as a dynamic system for quality changes in HEIs and f) Build an organised methodology of documentation and internal communication.

NCTE: ROLE FOR QUALITY IMPROVEMENT IN TEACHER EDUCATION:

1) Undertake surveys and studies relating to various aspect of Teacher education; 2) Make recommendations to Central and State Govt., UGC and others; 3) Co-ordinate and monitor Teacher education and its development; 4) Minimum qualifications for teachers and faculty members; 5) Norms of courses/trainings in Teacher education; 6) Guidelines for starting new courses; 7) Lay down standards in respect of examination leading to Teacher education; 8) Guidelines regarding tuition fees and other fees by institution.

QUALITY IN EDUCATION:

To achieve higher quality, attention should be given on the following aspects of education:

- a) Admission requirements and procedures; b) Development and production of instructional materials; c) Structure and management of the delivery system; d) Student support services; e) Student assessment procedures; f) Quality of materials used for teaching and promotion of learning; g) Monitoring evaluation and feedback system and h) Availability of adequate human and material resources for the operation of the programmes.

QUALITY ASSURANCE PROGRAMMES OF IGNOU:

- a) Planning the course or the programmes; b) Developing the course programme; c) Producing the learning material; d) Implementing the course or the programmes; e) Reviewing the course and follow-up activities and f) Developing human resources.

MAINTENANCE OF STANDARD/QUALITY:

- a) The institutes should have competent and adequate staff with high level of motivation; b) Lessons prepared with proper planning and after deliberation; c) Students' assignment evaluated, corrected and returned in time; d) Instead of depending only on print-material, modern technology of communication is used considerably; e) Library and laboratory facilities are available; f) The institute should have an identity of its own and g) Regular efforts should be taken to check the standard/quality of education.

CONCLUSION:

Enhancing quality is a holistic process. The synergistic relationship among the stakeholders and the production system is essential to achieve an enduring multiplier effect on quality enhancement. Quality assurance and accreditation in higher education is defined as systematic management and assessment of procedures adopted by higher education institution or system to monitor performance and to ensure achievement of quality improvement. TQM is a general management philosophy as well as a powerful tool which is proved equally effective both in product and service sectors including education. NAAC is working vigorously to benchmark higher educational institutions of India along this direction.

REFERENCES:

- [1] Bagade, S.D. *Total Quality Management*-H P H
- [2] Best. J. W. (2018). *Research in Education*, Pearson India Education Services Pvt. Ltd.
- [3] Creswell, J.W. (2015). *Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. India: Pearson India Education Services Pvt. Ltd.
- [4] Frazier, A (1997). *Road Map for Quality TQM in Education*, St. Lucie Press, Florida
- [5] Haris, R.W. (1994). *TQM and New Public Management*, Quality in Education, 2(3), pp33-39.
- [6] Koul. L. (2016). *Methodology of Educational Research*. New Delhi: Vikas Publishing House Pvt. LTD.

[7] NAAC (2001). *Handbook on Quality Assessment*. NAAC: Bangalore

[8]Mangal, S.K., & Mangal, S. (2015). *Research Methodology in Behavioural Sciences*. Delhi: PHI Learning Private Limited

[9]Sharma, D.D. *Total Quality Management, Principles, Practices & Cases*-Sultan Chand & Sons

[10]Singh, A. K. (2016). *Tests, Measurements and Research Methods in Behavioural Sciences*. New Delhi, Bharati Bhawan

