Abstract
The paper highlights the factors that bring about change in academic libraries. It proposes quality circles as technique for better management. It explains the attributes, phases in development and causes for failure of quality circles.

Keywords: Academic libraries, Quality Circles, Library management.

Introduction
Indeed the world of academic libraries is very dynamic! Academic librarianship has changed over the last few decades more than in its entire history. It plays a major role in building the future generation right from the schools to colleges to institutions of higher learning. High quality service has been the ultimate aim of any library and information center. But why have quality services from libraries become so significant in the past few years? It is due to the enormous changes that have occurred in information generation, information packing, information marketing, coupled with the awareness about electronic information. This gushing information from various sources in various formats has made the libraries shed their traditional role and has made them emerge as managers of knowledge.

Changes in Academic Libraries
Many changes have occurred in the sphere of academic libraries. The factors causing these changes may be categorized as economics, technology, higher education and human resource. As one of the key players in information world academic libraries have direct effect of the changes.

Economic factor is a greatest influencing factor as many library activities spin around it. The greatest concern is that the library funds are diminishing while the costs of all library materials have escalated. Coupled with this, is the increased demand for books and journals both in print and electronic form. This diminishing or stagnant funding has led to use of management techniques to increase efficiency. This has also made the libraries to look for alternative resources by charging certain services or marketing of information. The academic libraries have been forced to meet the rising expectations of the users in an era of shrinking budgets.

Technology factor has ushered speed and accuracy in many spheres of library activities like creating options for networking to provide access to vast store of electronic information and for automation of many housekeeping operations, but this has also added to the pressure of tight library resources, as funds have to channelised for purchase of equipments and infrastructure for IT based services. Besides this, the library managers have to cope up with obsolescence and compatibility of hardware and software which involves lot of investment.

The sheer amount of information available electronically is itself a challenge to the library professional. Some of the users are highly technosavvy, hence more demanding and also at times dissatisfied with the level of service they get. The paradox of academic libraries is that the user's computer literacy ranges from lowest to the highest level and the staff has to provide services to all the categories of users. Hence the training of the staff for efficient usage of IT services is very essential. Though it is costly but this has to be conducted as a continuous process.

Higher education has undergone many changes and of late has gained a lot of importance under Knowledge Commission. The future of academic libraries will be determined by their ability to adopt to their changing environment and to manage the change effectively. Libraries attached to institutions of higher learning have to cater to varied needs of user community which is a heterogeneous mixture of part time students, distance
learners, research students, teachers and scientists and the library services have to range from most basic needs of some users to highly specific needs of researchers and scientists.

If all the above three factors pave way for the changes in the libraries, it is the fourth factor, i.e. the human resources which has to usher these changes.

Any change or progress is possible only in a conducive organizational environment. This is possible by human resource development in the organization, as change can only live in a creative vital workplace. By understanding and responding to people, their fears and needs, the change process can be eased and right organization environment can be created.

Quality Circles
Maintaining a change-friendly workforce is not an easy task. The success of academic libraries will depend upon their ability to tap the abilities and talents of their staff by encouraging staff involvement in various spheres of library activities. Staff participation can be used as a management tool. Quality circle is one such tool which proposes staff involvement. A quality circle is a participatory management technique that enlists the help of employees in solving problems related to their own jobs. It has three major attributes

a) Quality circle is a form of participating management
b) Quality circles is a human resource development technique
c) Quality circle is a problem solving technique

Although quality circles are most commonly found in manufacturing environments, they are applicable to a wide variety of situations and problems. They are based on two ideas: that employees can often make better suggestions for improving work processes than management; and that employees are motivated by their participation in making such improvements. Thus, implemented correctly, quality circles can help to reduce costs, increase productivity, and improve employee morale. Other potential benefits that may be realized include greater operational efficiency, reduced absenteeism, and an overall better working climate. It ensures that individual members both demonstrate their best talents and function synergistically as a unit to achieve common goals.

Background
Quality circles were originally associated with Japanese management and manufacturing techniques hence the concept of QC in essentially Japanese. It played a major role in development of Japan after the second world war. QC in Japan was formalized in 1960 by K. Ishikawa. It is a very popular concept in Japan where there is hardly a worker who is not a number of one or the other QC. Later the west became aware of the success of QC and started forming circles with encouraging results.

In 1982 the QC Forum of India (QCFI) was formed in Secunderabad to create awareness and for imparting skills in implementing QC in different organizations. It is actively involved in sharing experiences of Indian organizations in this effort.

Definitions
Quality Circle may be defined as a small group of employees who work in same work area or doing a similar type of work, who voluntarily meet regularly for about an hour every week to identify, analyze and resolve work related problems, leading to improvement, in their total performance and enrich of their work life.

In their volume Japanese Quality Circles and Productivity, Ross and Ross (1982) define a quality circle as “a small group of employees doing similar or related work who meet regularly to identify, analyze, and solve product-quality and production problems and to improve general operations. The circle is a relatively autonomous unit (ideally about ten workers), usually led by a supervisor or a senior worker and organized as a work unit.”

Training for QC
An organization which intends to use its man power to full potency for the overall development can adopt the concept of QC. Before embarking on the issue of QC, training is an important aspect of quality circle activity. In their enthusiasm to launch quality circles without delay, many organizations often skip the training. The major objectives of imparting training for quality circles are:

a) To necessarily clarify any misconceptions that exists with regard to the concept of quality circle.
b) To translate philosophy of QC into practice – dealing with the employee at the grassroots level, and having an interface with many other forces that are prevalent in any organizations. It is essential that all those who are going to be involved in the implementation of quality circles must take care of all the important aspects of translating the theory of quality circles into practice.
c) To solve problems systematically through simple techniques. QC is very helpful as it is a people building philosophy and not just a people using one. The prospective quality circle practitioners are trained to use simple statistical quality control and other techniques for identifying problems, analyzing and solving them.
d) To improve communication capabilities - Not everyone, even at the managerial level, is adept at conducting meetings, making others participate in discussions and ensuring proper communication. It is very essential to impart
training to all the prospective participants of QC. The effective manner of making a presentation has also to be explained in the training session.

e) To develop leadership qualities and build up individuals, for the first time workers must play the role of leading their colleagues in the activities of quality circle.

Process of Operation
Employees who participate in quality circles usually receive training in formal problem-solving methods—such as brainstorming, pareto analysis, and cause-and-effect diagrams and then are encouraged to apply these methods to either specific or general problems. After completing an analysis, they often present their findings to management and then handle implementation of approved solutions.

Jena L.K. (2005) has briefly given the operation of quality circles. It involves a set of sequential steps as under:

1. **Problem identification**: Identify a number of problems.
2. **Problem selection**: Decide the priority and select the problem to be taken up first.
3. **Problem Analysis**: Problem is clarified and analysed by basic problem solving methods.
4. **Generate alternative solutions**: Identify and evaluate causes and generate number of possible alternative solutions.
5. **Select the most appropriate solution**: Discuss and evaluate the alternative solutions by comparison in terms of investment and return from the investment. This enables to select the most appropriate solution.
6. **Prepare plan of action**: Prepare plan of action for converting the solution into reality which includes the considerations “who, what, when, where, why and how” of solving problems.
7. **Present solution to management**: Circle members present solution to management for approval.
8. **Implementation of solution**: The Librarian evaluates the recommended solution. Then it is tested and if successful, implemented on a full scale.

The Operation of Quality Circles is depicted diagrammatically as under

![Diagram of Quality Circle Process](image)

Characters of QC
The following are the main characters of QC:

a) **Circle membership**: It is a group of more of less homogeneous group of people usually from the same work areas. They usually have same educational background and are familiar with same technical jargon so that no member should be inhibited in presence of other members.
However, whenever required experts may be invited for guidance or advice.

b) **Circle size:** It is desirable that the size of the circle is neither too small nor too big. A QC of only 2 to 3 members may often run out of ideas in solving the problems, also the meeting may not be held due to absence of 1 or 2 members. However, too large circles may inhibit all the members to express their opinion within limited time. In other words only some members may be able to participate meaningfully. Usually a group of 5 to 10 members seems quite effective, however, this is not a hard and fast rule. It depends upon the people employed in a particular section.

c) **Voluntarily participation:** The main attitude of QC is the members attend and participate in meetings voluntarily without compulsion. People are free to join and leave. If a person volunteers to join and leave later, there should be no pressure either from other member or from the superior, the person may be asked to state the reasons for leaving and if the problem can be sorted out amicably, he or she may return to the group if he/she chooses.

d) **QC meetings:** There is no hard and fast rule regarding the timings or duration of the meetings. The duration of the meeting should flexible and proportionate to the items to be discussed. An hour’s duration is usually quite adequate for a meeting. When the library works in shifts if the QC members are in different shifts, the timing should be fixed suitably. What ever may be the frequency of meetings regularly should be ensured. Irregular and infrequent meeting are major causes of failure of QC.

e) **Autonomy:** An important ingredient of a QC is the sense of autonomy experienced by its members. First and foremost their participation in the QC is voluntary and an option is given to choose their own leaders and also. Their own work related problems are selected by themselves to solve.

f) **Coordinator:** The circle has a coordinator of a facilitator who conveys the solutions provided by the QC to particular problems to the management. Usually the coordinator is the supervisor of the concerned unit.

**Phases in QC development**

An individual in any institution will naturally desire for appreciation of good work, recognition and publicity. QC satisfied the needs of a worker because he is identified as a member of a team it provides an opportunity for fulfillment of ego needs.

Once a QC is formed it has to pass through distinct phases of development:

a) **Problem Solving:** The key point of QC is the problems are identified, analyzed and solved by the members in their own work area. It is this aspect of QC that gets their strength and the members the greatest satisfaction. The QC offers opportunity to the workers to suggest ideas for solving work-related problems.

b) **Implementation:** When solutions are suggested by QC for their problems. They can implement themselves if the problems are related housekeeping operation. The co-coordinator or the facilitator communicates to the Chief Librarian. Undue delay in communicating may result in adverse impact on the morale of the QC members. Even if the suggestion is rejected, substantiate reasons must be given to the QC member or if minor modification for its acceptance are necessary the QC member must be proposed the same.

c) **Monitoring:** When several simple problems are resolved, circle begins monitoring the effort of problem solving. Members will be encouraged to use simple context techniques to maintain improvements already made.

d) **Innovation:** As the circles master most of the techniques taught and practiced, the confidence of the group will grow considerably. The Chief Librarian and Deputy Librarian have to now encourage this development and to introduce policy directions.

e) **Self control:** If the QC passes through phase a, b, and c they naturally develop maturity. The development involves two factors, i) **Internal** ii) **External.**

Internal factors for the development on the organization should support the QC by providing access to quality control data, technical journals relating to their work, training aids etc and the external factors are opportunities must be extended to attend various seminars and convention of QCs which will facilitate the members to exchange ideas and experiences for self enrichment.

**Causes for failure of QC**

QC is a delicate experiment and needs nurturing and support at all levels of organizations. Any lapse at any of the levels is likely to lead collapse of QCs. Some of the common causes for failure are.

a) **Low morale of employees:** When the management of the organization is of autocratic style which doesn’t have trust in creative capabilities of its employees their morale is very low. Besides this lack of team spirit, in many academic libraries there are no permanent staff, the workers are hired through contractors, in such cases inadequate salaries are also hindrance in functioning of QCs.

b) **Lack of training:** Training plays an important role in functioning of QCs. Training should not be confined to any particular level. Any library is unlikely to succeed in QC if it ignores the
importance of training. Training for top management should attempt to assess its attitude towards employees. Middle level managers’ training should attempt to diagnose factors in improving the library services. The low level workers should be trained to come out with diagnosing the hindrance to the service provided by the library.

c) **Not a task force:** The Chief Librarian or the parent institution should never treat a QC as a task force. The autonomy of the QC to select the problem and analyse, it should never be interfered with. The selection of problems and members of the QC must not be done by the management.

d) **Incompetent leadership:** Though QC members have freedom to choose their leaders but unlike corporate sectors, in Academic Library usually the section head is the leader who may not have good leadership qualities hence sometimes lack of good leadership leads to inadequate progress in tackling work related problems and if solved, delay in communication with the management eventually leads to its failure.

e) **Lack of management support:** Management support in different forms is needed for smooth functioning of QCs. Inadequate facility for QC meeting inaccessibility of data for problem analysis, delayed decisions and absence of reasons for rejection of QC suggestions, lack of policies to recognise of good performance of QC etc may lead to failure of QCs.

**QC in Academic Libraries**

QC is necessarily a management concept, but it can be adopted in Academic Library as it involves many sub-systems which join together to form the main system of Library and Information Centre. Only when each sub-system functions to its full potential, only then the system as a whole flourishes. In an academic library setup trust among the employees and responsibility sharing is very much necessary, hence adoption of QC concept will help in achieving the goals.

QC gives an opportunity to each member of the library to voice his/her opinion as a result of which rapport building is extensively undertaken and acceptance of others views is built up. But QCs can be practiced only when sufficient staff is available in the library.

**Conclusion**

Adoption of QC may be very helpful in libraries attached to medical colleges, engineering colleges and universities as the users are very specific about their information needs and also very techno-savvy. It offers an opportunity for the personnel to suggest ideas for solving work related problems and the most important ingredient of QC is the sense of authority experienced by the members. They will be able to identify themselves with organization and put in their best efforts for better library sciences, with the changing diverse needs of the users in this knowledge society, QC will help in bringing on the best from different strata of library personnel from librarian to middle level management to library assistants and down the line.

**References**


**Bibliography**


