

# **Embellishing Quality Personality of Students through Japanese-style Quality Control Circles in Academia**

A Success Story in Nepal

*-Prof. Dinesh P. Chapapagain*

## **BACKGROUND**

Each year in the month of November, young students from different parts of Nepal eagerly look forward to participate in a national festival of Students' Quality Circles (SQC). The annual three-day **National Convention on Students' Quality Circles** is being held in this country since 2005. On the occasion, thousands of school children cheerfully present and share their respective quality circle case stories. In the presence of an array of participants comprising of educationists, government authorities, business personalities, teachers and fellow students, they tell stories of how they solved their psychosocial problems, and how, in the process, they embellish their personality.

The short history of Students' Quality Circles in Nepal dates back to 1999. Since then, I have been motivated to propagate this unique approach of students' personality development. After my training on the practice of Quality Control Circles (QCC) at AOTS, Japan for industrial development, I adapted the approach in educational institutions to implant quality mindset among students right at their early age with the notion of "Catch them Young". Presently, more than 200 schools in Nepal have taken up Students' Quality Circles, either as extra-curricular or co-curricular activities.

I still remember the standing ovation given by 300 participants to the SQC case presented by a team of eight children of KU High School in the 4<sup>th</sup> Regional Quality Convention organized in Kathmandu jointly by Nepal AOTS Alumni Society and AOTS, Japan in July 2006. Among those applauding this unique personality development approach were the distinguished Prof. Dr. Noriaki Kano from Japan and a number of AOTS ex-trainee quality professionals from Singapore, Philippines, Malaysia, India, Pakistan, Bangladesh, Iran and Nepal who had attended the convention.

In my first training in Japan in 1970, I did not get to learn much on TQM and QCCs. I learned the secret of Japanese economic development only in 1984 when I got the opportunity to take part in training on Systematic Problem Solving (SYPS) at AOTS Tokyo. I learned the wider dimension of the word "Quality", the real meaning of problem solving for development, team work and working with facts. I tried to implement QCC, Companywide Quality Management in the jute industry and paper mill where I worked as an engineer and later as General Manager. By 1990, although I became a successful industrial manager in Nepal, I was not totally satisfied with myself since I felt that I could not sustain the system I had implemented in the industries I was involved in. Later, I learned more on TQM from Dr. Hitoshi Kume in 1996 during the E-TQM training program at AOTS Tokyo and then from Dr. Noriaki Kano in 1998 during his AOTS Overseas Lecturing Tour in Kathmandu, Nepal.

In earnest seriousness, I discussed with these two stalwarts of Prof. Kaoru Ishikawa the problems I faced on the sustainability of TQM implementation in our context. They told me that TQM is a universal philosophy, but its applicability solely depends on the level of education, level of competitiveness and the adaptable characters of that community.

Based on what I learnt at AOTS on different occasions in the background of **Japanese Style Quality Control Circles**, I experimented with an approach of **SQC** among school students for embellishing their quality personality and develop the adaptability characters of the future community in this country.

## STUDENTS' QUALITY CIRCLES

### Re-engineered version of Industrial Quality Control Circles to adapt in academia

To be competitive in the market, quality always comes first. However, quality products and quality services can not be delivered without the involvement of quality people. Who are these quality people? Quality people are those possessing both smart and good characters. How do we implant these characters into human beings who are owners, managers, regulators or employees of a company? The answer has always been a challenge to personality developers, motivators, facilitators, trainers or educationists of any country.

The TQM quality circle is an approach for developing quality people possessing good as well as smart characters. However, the original version of industrial quality circles needs to be slightly remodeled and applied among young students in academia. The approach then is called **Students' Quality Circles** (or, **SQC** in short).

**Problem observation:** The big question is WHY it was easier to develop and implement TQM in Japan? How the JUSE seminar in 1954 motivated scientists and engineers to develop the foundation of TQM? The answers to these questions were becoming quite clear then when I learned more about TQM and tried to implement TQM in industries. If we look at the time context, the World War II had clean-slatted the brains of the Japanese industrialists and bureaucrats operating during that period. Everything was devastated – the infrastructure and the people's psyche – and everybody had to restart from scratch. While the Americans induced some insights towards rebuilding the nation, Japanese quality gurus started scripting on the clean slates of the minds of the Japanese with new concepts of group dynamics and continuous problem solving for improving their quality of life. QCC as a component of TQM is more of a psychosocial substance. It should not be seen merely in the context of some simple technical tools, but more as a study of human behavior. TQM is seen more as a working culture than a management system, and it has to be infused in an organization for creating conducive environment for enhancing performance. Deskillling adults proved to be an arduous and time consuming process.

Experience tells us that it is very difficult to change or re-script as time passes, or at later stages of life. The next question that arises is whether individual traits come naturally or they are nurtured. The answer to this is that some traits come naturally, while many are nurtured. Parents at home do the nurturing or re-scripting of a new born child; for a child attending school, teachers at the school do this; and, the boss largely contributes to this as far as his subordinate is concerned. However, scripting on a clean board is rather easier and an effective approach than deskillling the skills that one has acquired by his/her experience.

**Countermeasure of the problem:** An alternative approach is to start much earlier – targeting the children, i.e., attuning the behavior of children so that they have positive inclination toward development through creativity and continuous problem solving for improvement. The brain-slate of a child is always clean, and therefore readily accepts any script on it. To bring about positive changes in the behavior of a person, one has to apply reinforcement at the earlier age. Today's school going children and university students will be tomorrow's managers, employees, entrepreneurs or leaders. When the attitude and behavior of the student is molded in a manner that empowers him to identify the challenges (problems) of the world, analyze them with facts of life and solve them thoroughly by collaborating with other fellow people for continuous improvement, then the person involved in this sort of activities will be a quality citizen. Introducing Quality Circles among students in their young age have facilitated them to build their character in both dimensions – goodness and smartness.

By definition, the primary purpose of adopting QCC in an industry is for continuously solving problems in the process and products. And, the secondary purpose of QCC is for self and mutual development of the team members involved in QCC activities. SQC emphasizes more on the self and mutual development as its prime purpose. Problem solving is the secondary purpose in SQC. Thus, industrial QCC is re-engineered as SQC to be adapted in schools among students for their personality development.

**Students' Quality Circle: An Experiment in Education:** SQC is a co-curricular activity which is integrated into the regular courses in educational institutions. The definition of Students' Quality Circle is:

- a small group of students of same educational institute
- who meet regularly in their study place for a particular period
- to identify, analyze and solve problems
- occurring in their schools or at home
- using systematic problem solving tools and techniques
- for their personality development.

SQC as a Circle is generally formed with a team of students of the same institute and they could be from different standards and grades. One institution may have several circles at one time. The membership in each circle should not be less than four but limited to ten. The members of a SQC generally meet with an agenda, on a weekly basis in an agreed venue within the school premises such as a vacant class room, laboratory, computer room, sports complex, canteen, dormitory or any other convenient place where they are not disturbed. The time of meeting is generally limited to one hour every week. Students do not waste much time in discussion. Circle schedules their meetings in advance. The time, day and venue of meeting are strictly adhered to unless some unavoidable circumstances arise. Different Circles may set different time and venue for their meetings. The main focus of the Circle is to identify, analyze and solve problems. In this context, three specific activities are performed by the Circle.

- 1) Members of each Circle identify their problems and the phenomena to be taken up for solving. Members identify a simple problem which the majority of students have been facing, one that is very important and frequently troubling the students. Generally, the members of the Circle will not take up a problem related to their teachers or to the management of the management, or to problems related to the nation or the world.
- 2) The Circle then analyzes the phenomena and the problem in detail. Each member involves himself in observing, quantifying and defining the problem specifically. They participate in group discussions to devise countermeasures to solve the problem.
- 3) The Circle evaluates and solves the problem permanently. The members generally do not recommend others to solve their problem, but rather solves the problem by themselves. They implement the action plan they have developed on the countermeasures as a team. After one cycle of problem solving is completed, the Circle takes up another important problem for solution. Thus, each Circle works continuously.

When many SQCs are launched and activated as co curricular activities in an educational institute, the environment of personality development among students is created. The educational institute is then said to be moving towards developing Quality People for the society.

## **STUDENTS' QUALITY CIRCLES**

### **Launched and Promoted at Schools in Nepal**

**First knowledge in February 1999:** In February 1999, on conceptualizing that Quality Circles can be applied in educational institutes for their continuous improvement, not only among teachers and administrators but also among the students for their personality development, I was eager to experiment the approach in some of the educational institutes in Nepal. When I expressed the desire to a few schools in the Kathmandu Valley to experiment this concept, the principals of most of the schools agreed although with some initial hesitation. The hesitation was but natural. After all, the approach was quite new and educationists had not heard about Total Quality Management and Quality Circles. Those who were aware of TQM related the approach for quality improvement in the industries and businesses. Educational field was different. And they were right in thinking so.

**Pilot programme in 1999:** When the founding principal of Himalaya Vidya Mandir, a medium-sized school in Kathmandu agreed to provide me with the opportunity to test the QC problem solving approach in her school, I could not but help admire the encouraging and risk taking attitude of this lady. I held a one-day seminar on the SQC approach for a group of interested teachers and students. I found seven students who could volunteer to form a team. I facilitated the team for seven months visiting the school for two hours every week. The SQC team selected their problem of “non-uniformity in school uniform”. These students were very enthusiastic and diligent. That time, I learned to adapt the QCC techniques for continuous improvement in industries and apply it for the personality development of students. It was very satisfying to see the transformation of the personality of students from individual excellence to group excellence in a holistic manner. It is amazing to see these students striving to be both good and smart rather than becoming smart only.

**Expansion to other areas, since 2000:** After my first experiment, I was encouraged to promote the SQC approach of personality development in other parts of the country. In 2000, I provided a brief introduction on the subject to a group of teachers in Biratnagar situated 500 Km south-east of Kathmandu. I received a second breakthrough when one very experienced and energetic chairman of a relatively large school from Dharan, Vijaypur High School invited me to give a seminar cum training on facilitating SQC activities to a few teachers of his school and a few other schools of the region. The seminar proved to be a great success. On returning to Kathmandu, I learned that about 30 schools of that region had already started SQC activities. Every year a number of SQC teams have been presenting various SQC cases on different occasions since then.

**Nationwide expansion, since 2003:** It then became my ambition to take up SQC as a national project. For this, I received the third breakthrough when one young and intelligent principal of a small school, Kathmandu University High School, immediately accepted the idea of SQC after attending one of my seminars on the subject and established SQC in his school. He talked to me on taking the SQC programme on a larger forum. We proposed to hold a national convention on SQC to promote this approach. On 26~29 October 2005, the first National Convention on Students' Quality Circles was held successfully. About 700 students and teachers from different parts of the country attended the convention, and endorsed the SQC approach for transforming their students into quality people. The second and third national conventions were held in Kathmandu in November 2006 and 2007 respectively. The fourth national convention is being held on 1~3 November 2008 again at Kathmandu, where about two thousand students and teachers are expected to attend and share their experiences on SQC.

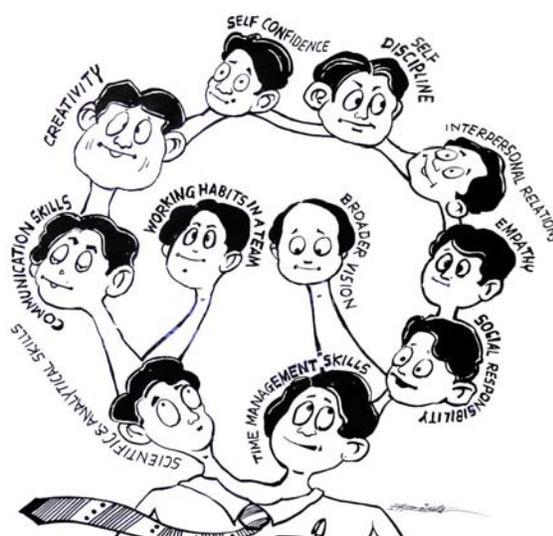
**Institutionalization of SQC, since 2006:** The fourth breakthrough in the initiation and promotion of SQC in the academia in the country happened with the formation of an

institution called *Quality Circles in Education for Students' Personality Development, Nepal*, or, in short, **QUEST-Nepal**. ([www.questnepal.org.np](http://www.questnepal.org.np)). The objective is to further enhance the promotion of SQC in educational institutes in the country with a purpose of creating quality people. Many educational institutes agreed to join in forming this national forum. The governing board members of QUEST-Nepal comprises of enthusiastic chief executives, educationists and teachers of the country. QUEST-Nepal is playing a facilitating role to introduce SQC as an integral part of curriculum through training, motivating and disseminating knowledge.

**Ripple Effects of Students' Quality Circles:** I wrote a book titled "A Guide Book on Students' Quality Circles: An Approach to Prepare Total Quality People" in 2006. This book has been distributed to educationists and quality professionals in Nepal as well as other parts of the world like India, Bangladesh, Philippines, Malaysia, Singapore, Iran, Turkey, Korea and Japan. I have presented my research papers on this subject in the Asian Quality Congress, 2006 held at Singapore and Asian Quality Congress, 2007 held at Korea. And the movement is on.

### **POTENTIALS OF STUDENTS' QUALITY CIRCLES** **A Research Finding**

The personalities embellished among students exercising Students' Quality Circles include many of the personalities required to become a quality person having good and smart characters. A content analysis was carried out utilizing the famous tool for verbal information called K.J. Method to cluster and prepare an affinity diagram and identify the potential of SQC. Secondary information on the intangible benefits was collected from the report of the conventions (2005~2007) on SQC held at different places. The interesting personalities developed are observed from the affinity diagram as follows:



**Self-confidence:** Students develop confidence in their knowledge, action and capability to deliver positive results even in difficult situations. This happens when a group of students in SQC solves their problem by themselves without depending on others. Their confidence in analyzing the environment and service delivery starts to develop in their mindset.

**Self-discipline:** The self-disciplined character attributes of commitment and honesty are developed when SQC members assemble every week at the same time for discussions and analysis.

**Interpersonal relations:** In the process of problem observation and implementation of the action plan to solve the problem, the students meet and interact with a number of other people besides their own team members, thus developing their own interpersonal relations skills.

**Empathy:** During discussions and brainstorming, Circle members always listen to others and give due importance to the views and opinions of others. While implementing countermeasures to solve problems, they also show understanding for other people with whom they have to work.

***Social responsibility:*** At the time of identifying problems, the SQC members personally start exploring the problem keeping in sight the community's sensitivities and well-being. Thus, the students develop character attributes of social responsibility such as adaptability, tolerance and doing something good for the society.

***Time management skills:*** SQC members have limited time to work. Each week, some ideas, analyses or conclusion have to be drawn within an hour. In addition, at least one problem has to be solved within a semester or a year. They develop skills in prioritizing activities, preparing action plans for analysis and implementing countermeasures within scheduled time.

***Scientific and analytical skills:*** SQC activities involve a lot of data collection on the features of the problems and phenomena, observation, analyzing the causes and root causes. They utilize various problem solving tools and techniques. Students develop the habit of analyzing with facts and figures and learn several qualitative and analytical tools during the process.

***Communication and presentation skills:*** Students who initially have difficulties in expressing their opinions in front of others develop confidence in communicating and sharing their views and opinions during brainstorming sessions. Besides, they also develop skills in presentations of their cases in front of a mass during the school day seminars or conferences.

***Creativity and lateral thinking habits:*** Students involved in SQC activities participate actively in several brainstorming sessions. The brainstorming exercises kindle the lateral thinking process among the students and help develop their habit of thinking creatively and always coming up with innovative ideas.

***Working habits in a team:*** Students realize the importance of group dynamics and the synergies created by working in teams. Individuals understand how to work in a team effectively. As a team, they participate in identifying, analyzing and solving common problems.

***Broader vision:*** Students involved in SQC acquire broad and in-depth knowledge of life and the surrounding environment. They are quick to acquire knowledge and skills prescribed in the curriculum from their teachers in the class. They learn a lot in the process of sharing and interacting with their SQC team members and also during the observation of the features of the problem.

## SUMMING UP

### De-learn QCC to Re-learn SQC

Adapting Quality Circles approach for students may need some fine tuning in the original form of Quality Control Circles developed five decades back in Japan for employee empowerment and problem solving. Some issues are summarized here. SQC is a strong tool for personality development of students that helps them become good citizens, confident, competent and humane, in the 21<sup>st</sup> century.

***Purpose of SQC:*** Preparing total quality person in educational institute is not related to the quality assurance system of the educational institute. Establishing quality circles among students in educational institute does not provide assurance to the society on the quality of the institute, but implants quality ingredients in the minds of the students who are products of the educational institute. The implementation of SQC enhances the quality of the product (student) at the institute and not the quality assurance system of the institute itself.

***Nature of Problems for SQC:*** Employees in QCC try to prioritize the problems on the process, working environment and products, whereas, students look for problems they are

facing due to their own faults. The purpose of implementing SQC is to develop the personality of students and not just solving problems. The nature of problems taken up by students will be very simple and within their own domain, and not entering the domains of teachers or other management staffs.

The conventional Quality Circles solve workplace problems in a team for continuous improvement. The SQCs solve their own problems in a team for their personality development. Here, one should clearly understand that SQCs are not meant to solve the educational institute's problems but to develop the personality of students who are involved in the QC problem solving process.

**Terminology for SQC:** Students are not controlling quality of anything, nor are the quality parameters of students being controlled by anybody during SQC exercise. Hence, the terminology "Students' Quality Control Circles" is inappropriate. It has to be named as *Students' Quality Circles*. The proposed terminology is short, catchy as well as self-explanatory. The SQC means a team of students in a circle implying it neither has a head nor a tail especially while practicing brainstorming. The three words – **Students' Quality Circles** convey a specific and appropriate meaning.

**Temporary nature of SQC:** Employees who practice quality circles in industries are more or less permanent in nature, whereas, students involved in quality circles upgrade their qualifications every year and leave the institution in shortly. Students thus have a temporary relation with the institution they are involved in. Naturally, addressing of the problems will be completely different in scope.

**Non-voluntary participation in SQC:** The main responsibility of the educational institute is to develop the character of its students. Thus, the institute should not encourage only voluntary membership of smart students SQC exercise. An environment should be created in educational institute that motivates all students to participate in SQC programme.

**Scheduling SQC:** Students generally do not get free time during their study periods. Educational institutes should set aside SQC schedule permanently, to ask all students for exercising SQC activities. Some institutes observing fixed schedule for SQC are making good progress in this regard.