Quality Circles

(lecture topic)

Quality circle are typically said to have originated in Japan in the 1960s but others argue that the practice started with the United States Army soon after 1945 with the Japanese then adopted and adapting the concept and its application.

Quality circles are not a panacea for quality improvement but given the right top management commitment, organisation and resourcing they can support continuous quality improvement at shop-floor level. What is a quality circle? A group of staff who meet regularly to discuss quality related work problems so that they may examine and generate solutions to these. The circle is empowered to promote and bring the quality improvements through to fruition.

Thus the adoption of quality circles (quality improvement team) has a social focus. There must be commitment from senior management, unit management and supervision, other staff and of course the circle members. A team of 6-9 people need to participate freely together, to challenge assumptions and existing methods, examine data and explore possibilities. They need to be able to call in expertise and ask for training. The quality circle needs a budget so that members can be responsible for tests and possible pilots. The need a skilled team leader who works as a facilitator of team efforts not a dominator. The circle needs to have a very good approach to analyzing the context of the problem and its situation defining just exactly what the problem is and the relationship between its component parts.

How it identifies and verifies that the causes are indeed the causes. These must be understood otherwise solutions as developed may fail to address the real problem.

Problem definition requires quantitative measurement and often a consensus of qualitative judgement. The impact of the "problem" - if it continues - must be comprehended. Where is it affecting other parts of the "problem system"?
We need to understand the quality objectives to be achieved and evaluate the resources that can be brought to bear on the problem and possible solutions. Objectives relate to both what must be done and what we would like to do - if only everything else will fit into place.

In the classical "functional, problem analysis" cycle, solution generation involves conceiving what might be done.

We can typically develop options from DO NOTHING to do everything. The options (MAX/MIN, optimistic/pessimistic, high/low budget etc.) are all models to be tested against objectives and constraints.

We must recognize also that there are tensions between resource constraints and solutions and the imagining processes of solution development. These must then be elaborated and grounded in detailed planning and operational implementation.

Such implementation planning and management of the change/operational programme involves scheduling, work allocation, capacity management, communicating, development of information monitoring systems and overall coordination and control of the solution programme.

Such steps are reflected in more detail in the very sound approach to problem analysis and solution development recommended by Charles Kepner and Ben Tregoe in their classic 1965 work (revisited 1981), "the Rational Manager". Other techniques may brought into use also by quality circle participants e.g.
process flow charts
brainstorming
cause and effect analysis

reverse engineering

value analysis

pareto analysis

Team members will need training and support to apply these to the context and issue they are experiencing. Management have to believe in the quality team process, listen to proposals and enable feasible solutions to be progressed through pilot stages and into full operation. Open-mindedness and a desire to avoid blocking is essential. It is a useful philosophy to realise that experimentation enables learning.

Using Quality Circles to Master the Classroom

(group training exercise)

You have received the computer-generated scores for the two courses that just finished. Students have scored your performance on a scale from 1 for lousy to 5 for terrific, and you are delighted to see that for one course your rating is 4.1, well above average for the school. Great news! Then you see the rating for the other course: 3.2, well below the average. Oh-no!

In search of excellence, you turn to the students' written comments on the 4.1 course, hoping to learn the secret of your success. Helpful hints are found here, but only hints. "Great lecturer," says one. "Really held my attention," comments another. You ask to see the students' comments received by a colleague who this year received a 4.9 and last year won a teaching prize. Not really much help here, either. The comments are memorable: "Bob is god," gushes one, but not the stuff of a learning curve.

Maybe the students' comments for your 3.2 course, you think, will prove more substantive since they will surely have caught your errors. You think you can take and take something from the bad news. That is usually a serious mis-estimate. The main effect of such comments "this is one of the worst courses I've ever taken" is to ruin the whole day, even the week. And you've learned nothing constructive.

Japanese companies long-ago evolved a device for learning what's troubling line workers, and what they would do to improve production. Commonly known as the quality circle, it fills in the blanks left by the numerical ratings. The device also sends a signal that you and the firm encourage continuous improvement, the signature of a "learning organization."

Many American companies have adopted this practice as well. A recent survey of U.S. firms reveals that nearly half have instituted quality circles, and more than a quarter use them with at least half of their employees. Quality circles and their first cousinsfocus

groups and 360-degree feedback exercises (in which an individual receives detailed assessments from subordinates, peers, and bosses)are now widely used in the private sector, but their university inroads have been modest.

For the past five years, I have instituted quality circles in all of my courses except doctoral seminars. The courses have included a College introductory course with 110 students, an upper-division undergraduate class with 40, a first-year MBA course with 65, and an executive MBA class with 95. Here's how they work.

On the first day of the course, I describe the purpose of the quality circle (to acquire continuous feedback for improving the course now and redesigning it for next year) and ask for three volunteers. We then meet every other week throughout the term. The time burden is modest: the discussions are limited to 30 minutes, and they usually follow a class meeting so travel time is minimal. The quality circle, its purpose, and the meeting schedule are also described in the syllabus.

When the quality circle first meets, I note that giving and getting feedback are learned skills on both sides, and that we will have to self-consciously work to get it right. If the students make me feel defensive, I will not get their message. At the same time, if I'm too closed, I will not get it either.

I announce the student volunteers to the entire class at our next meeting, suggesting that complaints can be safely channeled through them. QC members often take the initiative to sound out their class-mates before and after class. Several have even e-mailed all of their fellow students just before a QC meeting to take complete stock.

When we meet, I provide the quality circle members with an excerpt of the course syllabus covering the past two weeks. Which topics, readings, and cases, I ask, worked, and which didn't and why? Some topics are not well connected with the thrust of the course, I learn. Some readings are too old and too boring. On the flip side, some worked extremely well, clearly "keepers" for the following year.

What annoying tendencies, I also ask, are vexing the class. Among the answers I have received: failure to call on students in the corners of the classroom, the occasional mistake of repeating myself, insufficient clarity on the main points of a topic presented, and failure to summarize the day's key lessons. The constructive criticisms are the stuff of a learning curve that my numerical ratings and written comments had never before provided.

The hardest step, but one I also strongly recommend, is to have the quality circle members report briefly to the entire class at the next course meeting. This requires that you stand at the front of the room while your mistakes are publicly described. Your strengths also come out in the QC discussion, but in my experience students are often reluctant to offer much overt praise in front of the entire class for fear of classmate censure. After the QC members have finished their report, which only requires 2 or 3 minutes, I then offer my own assessment and report what changes I am makingor not making in response to their suggestions.

Participants in my executive MBA course are mid-career managers who are already making a living by giving and receiving feedback. Confirming that effective information sharing is a learned skill, I have exited from several quality circle meetings with them thinking they had found little wrong with the course. It was only on the way home that evening when I realized that their carefully phrased suggestions had masked a far-reaching critique of my performance.

Here is a summary of the main steps to operate a quality circle for mastering the classroom:

Three volunteers are requested on the first class day.

Preschedule frequent but short meetings in the syllabus (every other week for 30 minutes).

Announce QC members to the class once the QC is formed and before each QC meeting.

Ask QC members to canvass students for feedback before QC meeting (e-mail is useful here).
Present copies of the syllabus or excerpts from it to QC members at the start of meetings.
Review how to give and receive feedback at the first meeting.

Focus discussion on:
classroom ecology
course readings
problematic students
cases & exercises
evaluation & grading
course topics
your communication
course assignments
clarity of instructions
classroom culture
your movement
exams and projects

At the next course meeting, QC members and you make brief reports on feedback & actions. Supplement QC meetings with frequent informal discussions or canvassing of QC members. Use the final QC meeting to review the course & syllabus to revise for next year.