

The Quality Circles at the Service of Higher Education: A Theoretical Perspective under Scrutiny

SAAID Younes

University of Oran 2 Mohamed Ben Ahmed - Algeria

saaid.younes@univ-oran2.dz

Received: 16/04/2020; Accepted: 06/ 11/2020, Published: 31/12/2020

Abstract: *This research work will review at-hand literature about the use of Quality Circle model to assist teachers in higher education to integrate critical thinking skills into the classroom setting. The study could lead to enhanced insights into human behavior conduct within the educational settings in order to promote greater skills in decision making and problem solving. It is suggested that higher education organizations should begin using quality circles as means of improving communication and collaborative activities among teachers and students. Theory is indispensable in education; therefore, educational decision makers should be able to use this important tool for the daily educational and pedagogical operations.*

Keywords: *Quality Circle Model, Teacher, Students, Higher Education, Critical Thinking Skills, ESP, Human Behavior, Skills, Decision Making, Problem Solving, Collaborative Activities, Educational and Pedagogical Operations.*

Résumé : *Cet article examinera la littérature existante sur l'utilisation du modèle Quality Circle pour soutenir les enseignants de l'enseignement supérieur à intégrer les compétences de pensée critique dans un cadre pédagogique. L'étude pourrait mener à des informations améliorées sur la conduite du comportement humain dans les milieux éducatifs afin de promouvoir de plus grandes compétences dans la prise de décision et la résolution de problèmes. Il est suggéré que les organismes d'enseignement supérieur commencent à utiliser des cercles de qualité comme moyen d'améliorer la communication et les activités de collaboration entre les enseignants et les étudiants. La théorie est indispensable dans l'éducation ; par conséquent, les décideurs éducatifs doivent pouvoir utiliser cet outil important pour les opérations éducatives et pédagogiques quotidiennes.*

Mots clés : *Modèle Quality Circle, enseignant, étudiants, enseignement supérieur, esprit critique, , Anglais de Spécialité, comportement humain, compétences, prise de décision, résolution de problèmes, activités collaboratives, opérations éducatives et pédagogiques.*

1. Introduction

The quality of graduate and post-graduate education has been a persistent subject of discussion in higher education. Many scholars consider that students' involvement is the most essential condition to the advancement of distinction and excellence. The more students are engaged, the more diligently and dynamically they participate in their education to make learning happen.

In the Algerian Higher education spectrum, for instance, the place attributed to the teaching of English as a foreign language has changed as it has become a priority. Many language pedagogy scholars insist on putting emphasis on the practical approach in the teaching / learning of foreign languages by adopting a systemic approach which takes into account all the didactic parameters involved. In that regard Merine & Boulenouar argue:

Previously, English language was taught for pleasure or for educational purposes in terms of literature and culture. However, it has become obvious that teaching a language does not only involve the teaching of literature or culture; there was a shift towards the practical teaching of language ability as a means of communication and as a vehicle which facilitates further progress in different subjects and sectors leading to the birth of ESP as a new approach in ELT. (Merine & Boulenouar, 2019: 263)

Education specialists are first interested in the learner by examining the question of raising their motivation. Then, comes the question of analyzing the assortment of resources made available to students and teachers (textbooks, dictionaries, language laboratories, software, Internet) and how to overcome obstacles of all kinds mainly quality teaching / learning. In fact, quality assurance requires an essential questioning and does not only depend on a didactic or a linguistic theory; it is to be found in a continual adaptation of tools, methods and teachers to constantly changing teaching situations.

In the field of higher education, it is observed that students learn more if they collaborate in small groups and are allowed to build academic ties and relationships with other people. Following that, it seems that the Japanese Quality Circles model (QCM) can be implemented in the Algerian context with an aim to:

- Reduce errors and enhance quality,

- Develop a team atmosphere,
- Promote involvement and group cooperation,
- Increase motivation and participation,
- Create problem-solving capability,
- Improve teacher/students communication,

Knowing that a good grade could be earned by mutual effort, the groups can develop a considerable sense of cohesion and mutual concern. The need for coordination of efforts and the interdependence of students engaged in a joint enterprise is supposed to create in each student's mind a great motivation and a strong feeling of belonging to a collectivist society which is founded on hard work, discipline, and the subordination of personal gratification to the interest of the group. This positive effect is at the heart of the Japanese experience of trying, for several years, to adopt the Quality Circles mechanisms to ameliorate the quality of its products and change the world's image about the specification MADE IN JAPAN. Working on improving quality was not magic, nor was it accomplished overnight. It took Japan thirty years of hardship and dedication to become the third industrial power in the world.

In this research paper, we are very much concerned with providing a theoretical and a historical overview about QCM and the concept of Quality Circles which developed in the world of management and now is advancing to encompass an educational circle and philosophy.

Hirshfield (1984) at Pennsylvania State University and Murray (1983) at Valley Forge Military Junior College have indicated that Quality Circles models have upgraded the capacity of students and teachers to accomplish their duties well, most particularly in the experimental classroom¹ :

Traditionally teacher centered atmosphere of the classroom might be democratized by the introduction of Japanese concepts of consensus and participatory management (Hirshfield, 1984: 1)

¹Although already applied in nursing (Adair, Fitzgerald, Kortner, & Shaffer, 1982), the use of the quality circle in nursing education has not been recognized previously.

Fine elements about the delineation and denotation of QCM and the concept of quality circles are presented by Ouchi (1981). According to Ouchi (1981), quality circles (originally called Quality Control Circles) come from Japan after World War II in January 1949. Eighteen months later, the Quality Circle was incredibly enhanced by W. Edwards Deming, an American Professor of statistics, who developed the statistical process control techniques of QCs based on its founding reasoning.

2. A Historical Overview

The conceptualization of Quality Circles came to use in Japan after World War II during which the Japanese were more concerned with life matter and survival than with upholding a high level of quality control of their products and services. The quality of goods became meager and the Japanese products were seen as poor and shoddy to the rest of the world. General Douglas MacArthur (1960s) reacted to the situation by requesting US government assistance to save and improve the nation's image and recover Japanese people self-confidence. US government satisfied the Japanese requests by sending Dr. Deming² to instruct quality control strategies, techniques and methodology to Japanese managers³. The result of this cooperation was the phenomenon of Quality Circles⁴. The phenomenon grew in Japan to involve millions of employees. Gradually, the Japanese image began to change: today, that quality in a number of fields is considered to be outstanding.

² His name is Dr. Edward Deming. He was a government statistician.

³ Deming worked with the Japanese from 1948 to 1950 and was honored for his services in 1951 when the Japanese government created the Deming Prize. While there, Dr. Edward Deming lectured and preached what is known as Total Quality Control. In this program, quality begins in the design stage and ends only after satisfactory services are provided to the consumer; for a company to be successful, quality must be viewed as a total, all-encompassing concept. At this time, the Japanese government was also deeply involved in this service aspect for a quality improvement program. Under a comprehensive plan, many programs on quality control, statistics, and related subjects were broadcast on radio and television. The month of November was proclaimed Quality Month with "Q" flags, slogans, seminars, and conventions initiated during the month to promote the drive for 13 quality.

⁴ It is commonly known in Japan as quality control circles.

3. What is meant by Quality Circles (QCs) in Management?

It is suggested that the term Quality Circle has been explained by different economies (most particularly the American and Japanese ones) differently. However, the most commonly accepted definition in keeping with the essence of the philosophy as it originated in Japan is that Quality Circles are limited groups of people who meet together on a regular basis to identify, analyze, and solve quality and other problems in their area (Dewar, 1980).

The notion is constructed around directions of voluntary sharing and collaborative decision making and acts on the postulate that people who have command and input will be better motivated to attain greatness and excellence. Martel & Tyson contend that motivation must be found in the work itself by integrating:

Learning, direct communication, feedback, responsibility, and recognition, circle members will participate enthusiastically and without special incentives because they feel their work is rewarding and their contribution meaningful (Martel & Tyson, 1983: 286).

The philosophy underlying Quality Circles is founded in the human motivation theories of Maslow (1954), Herzberg (1968) and McGregor (1960). In approaching a situation, QCs mechanism follows a prescribed step-by step procedure:

- Identification of a number of problems,
- Selection of the one with the highest priority,
- Collection of the required data,
- Analysis of the problem,
- Selection of the recommended solution,
- Presentation to management,
- When a circle has dealt with all immediate problems, they then work with problem, prevention and productivity improvement.

Due to the fact that QCs is a structured problem-solving model, this research considers a doctorate research perspective for developing and enhancing English courses at different departments through the Quality Circles evaluation protocol. In contrast to traditional evaluation which should be, supposedly,

issued by the head of the department to a teacher –such as a grade at the end of the semester or the year- the QC evaluation protocol invites students and teachers, each one on its side, to give periodic feedback during a meeting. The basic idea is to set up regular meetings with a representative group of students and teachers to talk about how a course is going on and what possible answers could be suggested.

4. The Beginnings of QCs

Although the quality circle is widely considered a Japanese specialty, the father of the technique is an American quality expert, W. E. Deming (the 1950s). The concept to which he introduced the Japanese to aims at giving workers decision-making power over how their work is to be done, based on the premise that people who have real input will be better motivated to achieve excellence⁵ (Ouchi,1982). The philosophy of the Japanese style of management was based upon the use of creativity and talent of others, including the following concepts:

- Everyone is knowledgeable and wants to share and contribute to something;
- Management does not know all the problems;
- Management does not know all the answers;
- The employee has his own way of doing something and is closer to the problems;
- Workers can contribute with their ideas for effective problem solving

QCs are the medium through which workers share management responsibility for locating, analyzing, and solving problems related to their work area. The ideal size of a quality circle is seven or eight members who meet with their supervisors⁶ every week. The number of QCs can vary from a low of three members to a high of about 15, the size must consider that each and every member has sufficient opportunity to participate and contribute to each meeting⁷. The circle leader is relevant for instructing the

⁵ Ouchi 1982, 223-29.

⁶ The supervisor serves as a circle leader for the members.

⁷ A participative decision-making process should be adopted. Decision making by consensus was the subject of a great deal of research in Europe and the United States of America over the past twenty years, and evidence strongly

members the adoption and usage of QC strategies during the very first gatherings (meetings). The most frequently used and applied strategies as described by Chase (1983) are as follows:

- Brainstorming used to identify problems⁸, list possible causes, and suggest solutions,
- Voting to achieve group consensus involves two levels of voting that requires participation by all members⁹,
- Cause and effect analysis¹⁰,
- Data collection involves using any applicable data collection method to gather information on the subject under discussion,
- Decision analysis¹¹,
- Presentation¹²
- Evaluation¹³

Dumaine (1994) asserted that QCs, with their emphasis on solving problems of productivity and quality, provided incremental gains in productivity for business and industry. QCs have also been used in health care to improve patient care and to increase nurse empowerment (O'Brien & McHugh, 1994; Turtle, 1996; and Massaro, et al. 1996).

5. QCs in Higher Education

QC is an episode of interaction which implicates a principle initiated in business and industry. Interest in QCs spread to higher education in the 1980s, with some initial application in the classroom (Heller & Santola, 1986; Kogut, 1984). As the

suggested that a consensus approach yielded more promising and incentive decisions and more effective implementation than individual decision making.

⁸ Brainstorming helps produce creative, decisive thinking and numerous ideas relating to a clearly specified objective.

⁹ After the first round of voting whereby members can vote for as many ideas as they wish, the ideas are prioritized, discussed and voted upon again. The ones receiving the most votes are discussed further by the group.

¹⁰ Fishbone Technique — a method used to identify major and minor interrelated causes of a problem.

¹¹ Pareto Method utilizes a graph to chart the variables in a situation.

¹² It involves giving the recommendations of the quality circle to the person responsible for accepting or rejecting the ideas.

¹³ A process during which the quality circle members evaluate how the group function.

discussion of quality in higher education began to include the increased participation and ownership of students in the learning process, the use of QCs in the classroom has reemerged (Angelo & Cross, 1993; Nicoli & Butler, 1996; Nuhfer, 1992). The plan is to implement quality circles (shared ownership and empowerment) to bring to the teaching/learning environment improvement opportunities including brainstorming, interactive questions, and critical thinking strategies. It is a collaborative event during which teachers and learners are performing the 'job' of learning how to "think about thinking". The student will need to try different strategies to discover which works best, while the teacher presents to the student the product of how to think. QC in the classroom allows each student an equal opportunity to participate in learning how to think. By moving from one student to the next, seeking one suggestion from each student, with no judgment being made by any of the circles of participants, which include the teacher, it was found that there is greater in-depth processing of the problems and greater success role for each of the circle's participants.

6. Will QCs be used to talk about Productivity in Higher Education?

According to Cawelti (1982), "Productivity means accomplishing more while using the same number of resources." In fact, it is not easy to manage using the word "productivity" by teachers. However, due to the changing world the term, "productivity" can now be used by both organizations. Other names that have been or could be used for QCs include "student management teams" (Nuhfer and others 1990-2001, 2004), "quality teams" (Hau 1991), "educational process group" a "teacher-student consultation," or a "meeting with class representatives" (Orts 1997)¹⁴. Despite the short duration of the classroom QC, significant improvements in course quality can still be achieved and then archived and communicated to future Quality Circle members in subsequent classes: believing in the importance and

¹⁴Nuhfer and others (2004) have assembled an extensive handbook about the use, benefits, and pitfalls of student management teams in the college classroom, which is an invaluable resource for those desiring to implement classroom quality circles.

power of student involvement and feedback is at the heart of the model (Schmidt 2004),

Many teachers do see the decline in achievement scores and the decline in business growth as the two sides of a cause-and-effect relationship. Because of this close link, those teachers are taking a close look at the success of Quality Circles in industry, seriously considering the feasibility of the application of the concept to higher education.

Two of the major issues facing educators who are studying the Quality Circle concept with regard to education are:

- Whether American and Japanese cultural and societal differences make adoption or adaptation possible?

and

- Whether management practices from industry are transferable to education?

The answer to both issues lies in the universality of human needs in organizations, as far as human social nature is concerned. The participative style of management can be used to help people in the organization work together toward improving those policies that affect procedures, the work environment, and teacher-administrator relations as well as reaching solutions to achievement, discipline, and instructional problems.

Educational innovations and using QCs in the classroom to improve students' learning and satisfaction is probably a means of achieving both increased students' involvement and increased students' power. As adapted to education, QCs appear to be an easily defined, rational problem-solving process and, at the same time, a not so easily understood "third wave" intervention (Gibson, 1982) that can provide students with more holistic involvement in the classroom.

7. Conclusion

The process of learning how to think critically is a crucial skill that our students must be taught, practice and master. Teachers will need to reflect on their own teaching and inter-personal skills. Can they be non-judgmental? Are they able to use wait-time effectively? Are they willing to allow repeated practice and refinement of the thinking process? Teachers need to prepare themselves to offer new teaching strategies in helping students

learn to think about thinking. Uses of QC, brainstorming, and wait-time have proven to be useful tools in this task. We must teach our students to think critically just as we teach them academics. In this paper, we have tried to shed the light on literature relevant to the QC mechanism employed both in management and recently in higher education. Our intention was to consider the outcomes that have been achieved and/or can be achieved to facilitate the learning experience of students in higher education classroom settings. Changing QCs to quality education, colleges, universities, and other organizations need to involve more individuals and recognize the potential of collaborative societies to solve problems.

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