Student Quality Circles in Secondary School

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Short Communication

ABSTRACT

The study aimed to clarify the concept of student quality circles (SQC) and the mechanisms and procedures of their work in schools. The study used the descriptive method. And it reached the possibility of applying SQC in secondary schools with conditions, including training students on how to apply these circles, and defining their roles accurately, and the study showed that one of the benefits of applying SQC are developing effective communication skills between students and each other, increasing students' confidence in themselves and developing loyalty to the school to which they belong and develop their abilities to judge matters and face problems.

1. INTRODUCTION

The quality of students has been a persistent subject of discussion in educational institutions. Many scholars consider that students' involvement is the most essential condition to the advancement of education. Students are engaged, the

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more dynamically they participate in their education.

In the field of 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 [1,2]. Following that, it seems that the (SQC) can be implemented in the educational context with an aim to: Promote involvement and group cooperation, Increase motivation and participation, Create problem-solving capability, and Improve teacher/students communication [3]. 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 [4,5].

In this article, we are concerned with providing a scientific overview about SQC and the implementation them in educational institutions.

2. BACKGROUND OF SQC

SQC are based on TQM principles such as collaboration, problem prevention, continuous improvement etc. The idea of SQCs was introduced at a conference held in Hong Kong in October 1994 [6]. After seeing its benefits, teachers in many countries have started applying these circles. Where it was considered a good method in solving student problems.

The Global Council for Total Quality and Excellence in Education was established in 1999. Among its objectives was the expansion of the application of the activities of the SQC in its member countries, which number more than twelve. Such as India, Bangladesh, Pakistan, Nepal, Sri Lanka, Turkey, Mauritius, Iran, the United Kingdom (Kingston University and started at the University of Leicester) and the United States of America [7].

3. THE CONCEPT OF SQC?

SQC are a small voluntary group of students (three to ten) who meet voluntarily under the supervision of a facilitator on a regular basis for about an hour each week to identify, analyze and solve problems related to their class or school by applying TQM tools and techniques [7]. It is also a group of student volunteers consisting of members who meet to complete the target task,

suggest improvements in the task, and make presentations to their management with their ideas [6,3].

According to this perspective, a quality circle can be defined as a group of students in one classroom who meet regularly in a specified place to discover and analyze the academic problems they face and devise solutions. This group, with each member of the circle, fully participates in the activities, using problem-solving techniques to aid self- and mutual development in the process. They are trained by teachers who have the basic skills to identify problems, collect information, organize and classify and analyze it, and devise solutions.

The concept, then, is based on the premise that students who do work every day know more about it than anyone else, and so their voluntary participation is the best way to solve their own learning problems.

4. OBJECTIVES OF SQC

Quality circles aim to give their members the opportunity to contribute to problem-solving and focus on teamwork and collaboration, promote task involvement, improve communication, promote leadership qualities, promote personal development, develop a greater awareness for cleanliness, [7] develop greater awareness for safety, reduce errors, build an attitude of problem prevention, promote cost reduction and develop harmonious managers, teachers and students [8].

So today's quality circles work to avoid mistakes in students' performance instead of discovering them after they happen. Hence, it affects increasing students' interaction with different educational situations.It also encourages student participation as well as promotes teamwork. Thus, it motivates students to contribute effectively to the development of the school's performance in general and to develop the quality of its outputs through the group's operations.

5. STEPS FOR SETTING UP SQC

For starting QC in classrooms, following procedures should be taken: [3]

- Supervisors must be made aware of the concepts and activities of Q.C.
- The school administration must provide support for the success of the activities of the QC.

- The steering committee shall be formed to give directions and advice for proper implementation of the activities of the QC.
- A facilitator is selected from among the outstanding students, who will act as coordinator and advisor for the QC.
- Training students on how to implement the activities of the QC.
- The members of each circle must be selected from students who belong to the same class.
- Membership to the circle is voluntary.
- First few meetings of the circle are held with a view to train them.
- At the beginning of the implementation of the circles, only one or two circles should be formed in the school, and then the number should be gradually increased with the acquisition of more experience in implementation.
- Meetings shall be held regularly, and may be once a week at the beginning and once a month upon completion of the basic training of the student members of the circle.
- The problem is matched with the objectives of the circle.
- Total participation of team members must be encouraged.
- The circle recommendations must be considered and decisions taken regarding them.

6. EDUCATION APPLICATIONS FOR QUALITY CIRCLES IN THE CLASSROOM

In light of modern trends in education, it has become more essential that Focus on how to facilitate student learning Through their participation in determining the methods of their education that are commensurate with their different abilities. Moreover, students are more hesitant in giving feedback directly to the teachers; rather, they are more comfortable to express their views to their peers. In this aspect, quality circles (QCs) are designed to improve the education quality for students through continuously focusing the attention on it.

Previous studies have found; To the need to apply this method in the classroom for its significant role in improving student learning. They hypothesized that the increased communication and student engagement provided by this technology would also lead to increased satisfaction with their learning experience [1].

Therefore, the decision was taken in many countries to implement the method in their schools. Schools have done studies on how to apply this method, and most of those schools agreed on the need to start training students on how to participate in these circles and what are their roles? How do they play those roles?A group of distinguished teachers were selected who trained the students [6]. The training usually lasted about two weeks, then the actual application in the classrooms began.The number of students in each group was determined from five to ten students, according to the size of the problem that will be studied, and they will meet at least once a week [9].

Students will be encouraged to volunteer to work on the team, and then team members will be randomly selected from the pool of volunteers. After all students have had the opportunity to volunteer, they will be divided into specific circles, preferably with a strong relationship between the students of each circle [10].

A meeting will be held between faculty members and all students who are members of the circles.The meeting will be used to discuss ways in which the team can work,In addition to providing instructions for work in the circles . Indicates [7] the students will be enthusiastic about the work, especially since they are full of ideas. Curiosity also arouses their feelings.Attention will be given at this first meeting to present the following ground rules. For circles: the issues will be limited to the problems facing the students, or any topics they deem important to discuss. Personal attacks against faculty members or other students will also not be permitted.

Some examples of the types of issues brought to the team include: Difficulty and unclearness of some homework Concern that there is not enough time in the class to present the content Frustration with schedule changes especially exam dates Questions about exams (content, length) as well as questions about absence from class.

At the end of solving the problem, the circle members will be asked to write their evaluation. which determines their positive and negative perceptions of the work style within the circle . And the most prominent proposals for the development of the method of work.

Structure of a quality circle: Quality circles meet regularly. The structure is flexible but often follows the outline below: [11,12,6]

- Non-members: Students who choose not to participate in the quality circle cooperate with member students in implementing suggestions made by members.
- Members: All students are welcome to join a circle, and must participate in formal training and attend meetings. Members actively contribute their ideas to the Quality Circle discussions.
- Leader: The members of the constituency elect a leader. The leader directs the members and allocates tasks to them, ensuring that the activities are carried out effectively.
- Coordinator: He trains the members, contributes to the establishment of the circles and solves the problems that arise during the implementation of the activities.
- Steering Committee: It works to achieve the goals of the quality circles, ensures the existence of support for them, and provides advice to increase their effectiveness.
- School administration and teachers: The administration and teachers provide support to the quality circles, contribute to solving its problems, and provide it with all the requirements for its success.

It is clear from the foregoing that the roles of team members are multiplied, and the aim of this multiplicity is to ensure the effectiveness of the quality circles.

Process of Operation: Operations include the main stages when applying the quality circles, the most prominent of which are: [13,14] (Mohammad, et al. 2014)

- Define the problem: identify a number of problems that students face.
- Choosing the problem: In this step, the problem that will be addressed is determined first.
- Problem Analysis: The dimensions of the problem are clarified and analyzed through basic problem-solving methods.
- Propose alternative solutions: provide a number of alternative solutions to the problem.
- Choosing the best solutions: Alternative solutions are discussed and evaluated in light of specific criteria. This enables the selection of the most appropriate solution.

- Preparing an action plan: An action plan is prepared which includes considerations of "who, what, when, where, why and how" to solve the problems
- Solution Submission and Implementation: The team evaluates the recommended solution. Then it is tested and if the test process is successful, it is executed.

Quality circles work according to specific stages, each stage is implemented in a specific way. Also, those circles have strong links.

7. THE EXPECTED RESULTS

Students' positive perceptions of teachers' interest in their learning. And the development of their relationships with them, and the high level of satisfaction with what they learn. Eliminate cases of fear that students are exposed to in exams, rapid response to solve problems [15-17]. The use of the quality circles method also provided opportunities for team members to develop their leadership skills during their work. Increasing focus on positive interactions between teachers and students, which contributes to achieving and improving the intended learning outcomes.Based on the success of this experience, it is possible for teachers to plan to incorporate the use of those circles into future courses.

8. SUGGESTIONS

Despite the positive results of implementing SQC, there are some suggestions for improving the use of this method in the classroom:

- Offering more than one meeting at the beginning of the work of the quality circles, because one meeting may not be sufficient to explain the concept of the circles, their objectives, tasks, and the roles of students in them.
- Developing effective communication skills between students and each other by focusing on activities outside the working hours of the circles.
- Teachers need to realize that some of the students who volunteer in those circlesThey have not fully developed the teamwork skills needed for this technique. Hence the faculty may need to offer more training programs for students.
- Teachers should be more flexible and open when dealing with students in those circles, meaning there is a need to give up some authority.

9. CONCLUSION

The overall impact of SQC seems to improve the teaching and learning process. moreover SQC helps in Developing relationships between students and each other, and between them and teachers, their self-reliance in solving problems, improving their self-confidence ,creates an environment of student centric, fairness, student empowerment and improved the quality of the course as well as its delivery. It complements and supplements in achieving students intended learning outcome and hence may contribute to overall learning quality in the long run.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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