

11 Using Quality Circles To Solve Work-related Problems

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1 INTRODUCTION

In my work as a senior supervisor for English in the Ministry of Education I am often called upon to join committees who have been asked to solve particular problems the Ministry or teachers are facing. My experience of these committees is that they operate in a very top-down way and do not provide the right conditions for solving problems collaboratively. The purpose of this study is to explore the use of an alternative strategy for solving work-related problems – quality circles.

2 QUALITY CIRCLES

2.1 Defining Quality Circles:

Several definitions of quality circles have emerged over the years. Gupta (2001: 771) states that the most widely accepted definition for a quality circle is “a small group of people doing similar work who meet voluntarily and regularly, usually under the leadership of their supervisors, they identify and discuss their work problems”. Basu (2004) claims that the circle consists of people who work well together and who want to contribute to the success of the organization. He believes that a quality circle will work if the following rules are applied:

- It consists of volunteers;
- The problem to be studied is chosen by the team and not imposed by management;
- The management must whole-heartedly support the circle;
- The members of the circle are trained in working as a team (group dynamics), problem-solving techniques, and in how to present reports;
- The leader of the circle is chosen by the members.

Another definition of quality circles is offered by the UK Department of Trade and Industry:

a group of four to twelve people, coming from the same area, performing similar work, who voluntarily meet on a regular basis to identify, investigate, analyse, and solve their own work-related problems. The circle presents solutions to management and is usually involved in implementing and later monitoring them. (Fox, 1995: 219-220)

From these definitions, we can see that the quality circle is a bottom-up approach for solving problems. The members are volunteers who work well together and meet regularly to find solutions to work-related problems. They are interested in contributing to the success of their organization.

2.2 Benefits of Quality Circles

According to Jain (2001), organizations adopting quality circles can benefit in several ways. Some gains may be tangible while others may be intangible, but ultimately quality circles will lead to improved performance. Some direct gains are:

- Improving quality and productivity
- Promoting job involvement and sense of participation
- Creating a problem solving and problem- preventing attitude
- Developing creativity and an innovative spirit
- Inspiring team work and developing harmonious relations.

Gupta (2001) indicates that quality circles are an important source of job interest; they provide a sense of participation and enhance the ability to work with others. He believes that quality circles increase productivity, enhance motivation and improve quality. Given the potential benefits of quality circles outlined here, the purpose of this study is to examine their use as a problem-solving strategy amongst a group of English supervisors I am responsible for.

3 METHODOLOGY

This study examines the use of quality circles by English supervisors to solve work-related problems. It attempts to answer the following research questions:

1. To what extent do quality circles allow the senior and regional English supervisors to work more cooperatively to identify work-related problems?
2. To what extent is this group of participants able to find solutions to problems using quality circles?
3. What are the benefits for the participants in the study of using quality circles?
4. What major factors affect the use of quality circles to solve work-related problems?

3.1 Context & Participants

A total of 14 regional supervisors and the senior English supervisor (myself) participated in this study. This group constitutes the whole population of English supervisors in the Dhofar Region of Oman. The group met in the normal course of its duties to discuss issues related to the supervision of English teachers and the study made use of these meetings to experiment with and study the use of quality

circles. While I was part of the group, my role was at the same time to train my colleagues in the use of quality circles and to study our experience of using this problem-solving strategy.

3.2 Data Collection and Analysis

This study drew on data from observations, semi-structured interviews and a checklist. The data were analyzed using a combination of qualitative and quantitative strategies (drawing on suggestions in Punch, 1998, Hopkins, 2002 and Munn & Drever, 2004).

For the observations, the participants were first trained in how to organize quality circles (see Jain, 2001). During the quality circles sessions themselves, I worked with my colleagues as a quality circle facilitator who can provide advice, mobilize resources to help the circle and co-ordinate the activities of existing circles. I was also an observer, and collected data using field notes to describe what was happening during the quality circles (see Simpson & Tuson, 1995; Cohen, Manion & Morrison, 2000 for advice on using observation as a research method). The data from the field notes were particularly relevant to the first two research questions listed above. I observed five quality circles carried out over a period of two months, during which the group of supervisors was observed working together to identify a major problem and find a suitable solution. With participants' permission, and to maximize the accuracy of the data collected, the quality circles were also video recorded.

Interviews were conducted with eight supervisors soon after the completion of the final quality circle. I designed an interview schedule (see Appendix) through which further information relevant to my research questions was obtained. Advice on the format and wording of questions from Drever (2003) was considered during this process. The interview questions were open in order to encourage longer and more detailed responses. The interviews were recorded, with participants' permission, then transcribed in full. The transcripts were analyzed closely and key themes were identified and categorized under headings relevant to the research questions of the study.

The checklist consisted of 11 statements which elicited respondents' views of the value of quality circles. Respondents were asked to express their degree of agreement with each statement on a scale of strongly agree to strongly disagree. The checklists were completed after the last quality circle in the study.

The three tools were piloted before the actual study with the help of three senior teachers from the same region. I conducted quality circles with them for two days and tried out my observations, interviews and checklist. As a result of this process, the interview questions were further refined and additional statements were added to the final checklist.

4 FINDINGS

4.1 Checklist Responses

Table 1 shows the mean responses for the 11 checklist items. Strongly agree responses were assigned a value of 5 and strongly disagree responses were assigned a value of 1. Higher mean scores thus reflect a higher level of agreement with a statement among the fourteen respondents.

The lowest mean here was 3.4, which shows that respondents' level of agreement with all the statements was high. The overall mean for all 11 statements of 4.2 confirms this. Participants in this study, then, felt that quality circles were beneficial in a number of ways.

Table 1: Mean responses to checklist items

Quality circles are valuable in:	Mean
Making my job more interesting	3.9
Promoting job involvement and sense of participation	4.5
Identifying some of the more pressing problems in my work area	4.4
Analyzing the problems	4.6
Giving supervisors the opportunity to do something positive about the problems they face	3.9
Developing problem solving skills	4.3
Developing creativity	3.4
Inspiring teamwork	4.4
Enhancing motivation	3.9
Providing a useful forum for discussing work-related issues	4.1
Developing communication between individual regional supervisors and their senior supervisor	4.4

Following the checklist, respondents were also asked to add any further comments on the benefits of quality circles. Eleven respondents answered this question and two main themes were identified in these responses. One theme was that quality circles allowed participants to share ideas and experiences. For example, one supervisor wrote that

It gave me the chance to discuss and share views on various topics, and surprisingly some of these were quite contradictory. It gave me an idea about what other supervisors do concerning certain aspects of our work, and this can be quite inspiring and motivating.

A second theme in supervisors' comments was that quality circles allowed them to approach problem-solving systematically. One explained that

Actually, I found QC a more organized way of approaching problems we face as teachers and supervisors though the ideas and procedures are not totally new. Identifying the problems, analyzing them, suggesting solutions, implementing them and getting feedback are all chained procedures that help solve problems appropriately and efficiently.

In their open-ended comments four supervisors highlighted problems they faced in using quality circles. These related mostly to the time this process required, particularly when the supervisors were in turn trying to use quality circles with the senior teachers they were responsible for:

This quality circle was beneficial, but the senior teacher was busy with his reports and other things too. He agreed that it is good and helpful, but not having enough time to do it was a real problem.

4.2 Interviews and Observations

The analysis of field notes and interviews highlighted a number of themes relevant to understanding the use of quality circles as experienced by the participants in this study. I discuss these themes in turn below.

4.2.1 Team Work

All the interviewees – eight regional supervisors- said that quality circles are a good technique for enabling them to work as a team. They explained that they worked as a group to share ideas, experiences, discuss many problems and to choose the one to focus on. For example, one supervisor explained:

We gathered together and made the group and first of all this makes us near to each other ... and we are thinking of problems from many different sights. Sometimes I find a solution and another supervisor finds another solution and then we come to each other and we see the best solution and we take it without any difficulties who is providing this solution, therefore we feel the group and we do our work friendly and frankly.

There was evidence of productive team work from the observations too. It was clear that all the supervisors participated cooperatively in the analysis and discussion of their problems. They were constantly sharing ideas and experiences with each other.

4.2.2 Finding Solutions

All the supervisors pointed out that they were able to come up with solutions to the problem being discussed. One supervisor, for example, explained that “quality circles led us to solve problems. We can find many solutions for each problem easily”. Another supervisor explained in more detail:

We found lots of solutions. So we organized ourselves in groups and discussed various problems faced by the teachers in the schools and at last we came to a decision that only by training can we help the teachers; conduct seminars, mini workshops in schools or seminars at the regional level. We provided the teachers with training materials and encouraged them to conduct two seminars. So they managed to conduct the seminars and the feedback explains clearly that they have benefited a lot. From their feedback it is obvious that they have benefited a lot from training materials. I found that their work in this area is improving.

From observations, it was clear that the supervisors were able to come up with an appropriate solution to the problem they identified. The training plan was a good solution but some supervisors could not implement it successfully due to time factors - it was difficult to apply the training plan late in the school year, when this

study was taking place. Almost half of the interviewees agreed that it would be more beneficial if they started a training programme at the beginning of the school year

4.2.3 Further Benefits of Quality Circles

In addition to the two categories already discussed, interviewees identified a wider range of benefits they felt quality circles had. These are summarized in Table 2 below. Once again, the value the supervisors placed on the co-operative and collaborative aspects of quality circles was clear here. Productive team work was a key ingredient in allowing them to identify suitable solutions to work-related problems. This process also gave supervisors a strong sense of involvement and responsibility for the decisions that were made, as this supervisor explained:

The most important thing is we decided the problem and we solved the problem by ourselves we do not depend on previous researchers or scholars or educators. We do not follow others like my boss review. We do not take instructions from others. Just we try to negotiate and try to discuss our problem and at the same time we can find and apply what is possible to solve this problem according to our beliefs and our understanding of the reality of the problem and we give the solution. We identify the problem and we go through the procedures and at the end of the day we are the people who can bring solutions and conclusions to our problems and I am sure there is a development because we know either we solved the problem or we need another quality circle to find more solutions or other ways.

Table 2: Benefits of quality circles mentioned in interviews

Benefits	Description
• A group based technique	• Supervisors work together in groups to discuss various issues
• Solving problems	• They identify the problem, analyzing it to find suitable solutions
• Sharing ideas and experiences	• Supervisors exchange information and knowledge and learn from each other
• Good relationships	• Good connections between the members of the group which allow them to talk freely and honestly with each other
• Improve quality	• Reach suggestions that help in improving their standard of performance
• More responsibility	• Allows participants to feel more responsible in making decisions
• Very fruitful debate	• Discussions during the meetings to express different opinions
• Work at ease	• State opinions comfortably without worries or problems
• Showed me the right path to follow	• Make it clear to the supervisor what to focus on when visiting schools and to think thoroughly about the plans to make for next year.

4.2.4 Factors Affecting Quality Circles

I also asked participants about the factors which they felt affected the success of quality circles. The two most commonly mentioned factors were the availability of time and the degree of interest in the process that participants had. Other factors mentioned by two or fewer supervisors were the experience and qualifications of the participants, how well they get on, and the degree of support provided by the management.

Five of the supervisors said that choosing a good time for conducting quality circles is very important and has an impact on achieving the aims of quality circles. Having enough time for the process to unfold was also seen to be important. For example, one supervisor explained that "I think if we start it earlier, three weeks or a month earlier it will be more beneficial". Another supervisor said "because of shortage of time as it is the end of semester two it was not easy to evaluate what I did".

A number of interviewees also felt that the willingness of supervisors to participate in the circles has an effect on the process. For example, one supervisor explained that "It depends on the group if the team members are interested in carrying out this activity, I think it will work".

5 DISCUSSION

This study suggests that quality circles promote job involvement and a sense of participation. The supervisors identified problems and how to solve them according to their beliefs and understandings of the reality of the problem. They did not rely on outsiders such as educators or people from upper management. They participated in making decisions. Basu (2004) also noted that quality circles encourage workers to become involved in making decisions that increase the quality of their work.

Dale & Plunkett (1990) point out that one goal of quality circles is to promote improved communication among participants. Almost all the supervisors in this study agreed that quality circles develop communication between individual regional supervisors and their senior supervisor. Four of them suggested that it builds good relationships between the members themselves as well. They felt they were able to express their thoughts freely without any constraints..

The supervisors also believed that quality circles enhance group work. They worked together, sharing ideas and experiences cooperatively, to identify the main problems they face in the field. This finding supports the view reported by Gupta (2001: 772), who pointed out that "quality circles enhance the ability to work with others, i.e. inculcates a team approach to problem solving".

Supporting the views of Fox (1995), supervisors' responses here also indicated that quality circles can be a useful tool for solving problems. They agreed that through quality circles they were able to analyze selected problems and identify their main causes. This then allowed them to identify suitable solutions.

Jain (2001:328) suggests that quality circles develop creativity and innovative spirit. There was less evidence of this here and creativity was the potential benefit

supervisors felt they experienced least. One reason for this may have been time pressure, as supervisors needed to identify and implement solutions to their problems in a short period of time at the end of the semester. They may have thus opted for ideas that were practical and easy to implement rather than trying to be creative.

The study has also highlighted some factors which participants feel influence how successful quality circles are. As Dale & Plunkett (1990) suggest, the availability of time is clearly a requirement, both for groups to meet as well as for them to implement the actions they agree to take. In this study, a number of the participants were unable to implement their actions due to the demands of other responsibilities at what was a very busy time of the school year. Clearly, too, a group where individuals are committed to and interested in solving problems co-operatively is likely to be more successful in using quality circles than one where the individuals are less willing to participate in the process.

5.1 Limitations

Quality circles seemed to be beneficial in the context studied here and the participants reported very positive views about this process. In interpreting these results, though, it is important to acknowledge that my enthusiasm for quality circles may have influenced the views that the supervisors participating here expressed (I am, after all, their manager). It is likely, for example, that more could have been said about the challenges that quality circles presented, yet there was not much data on such issues here. The results of this study also apply only to the group studied here. Further research in other parts of Oman is needed to study the use of quality circles in the work of supervisors more widely.

6 CONCLUSION

This study suggests that quality circles can be a very useful tool for solving work-related problems. The participants in this study found quality circles beneficial to their work in a number of ways, particularly in involving them in decision-making, promoting good relationships among colleagues, encouraging team work and developing problem-solving skills. The study has also been very beneficial for me as a senior supervisor; quality circles provide me with a strategy through which I can collaborate with colleagues in addressing the problems that we and our teachers face. I am confident that supervisors in other parts of Oman could benefit from applying quality circles in their contexts too.

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APPENDIX: INTERVIEW QUESTIONS

1. Do you feel from your experience that quality circles led us to work in groups? How?
2. Do you think there are any benefits of using quality circles? If yes, what are they? If no, why do you think they have not been beneficial?
3. I would like you to talk about what you see as the main features of quality circles, compared to what you were doing before to solve your work-related problems.
4. Do you think that through quality circles the group was able to come up with good solutions to problems? If yes, give me examples. If no, why do you think quality circles did not help you find solutions?
5. Have you managed to implement these solutions in the field? If you couldn't, why?
6. Sometimes quality circles can be successful, sometimes they are not; what factors may influence their success?
7. What are the major factors that affect the use of quality circles to solve your work-related problems?
8. Is there anything else you want to say about this topic which I did not include when I introduced quality circles to you?
9. Is there anything else that you want to ask me?

Thank you very much for your time. It has been most interesting talking to you.