INFORMATION TO USERS

The most advanced technology has been used to photograph and reproduce this manuscript from the microfilm master. UMI films the original text directly from the copy submitted. Thus, some dissertation copies are in typewriter face, while others may be from a computer printer.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyrighted material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is available as one exposure on a standard 35 mm slide or as a 17" × 23" black and white photographic print for an additional charge.

Photographs included in the original manuscript have been reproduced xerographically in this copy. 35 mm slides or 6" × 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.
Quality circles and their existence in present-day high schools

Padró, Fernando Francisco, Ph.D.
The University of Arizona, 1988

Copyright ©1988 by Padró, Fernando Francisco. All rights reserved.
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark √.

1. Glossy photographs or pages
2. Colored illustrations, paper or print
3. Photographs with dark background
4. Illustrations are poor copy
5. Pages with black marks, not original copy
6. Print shows through as there is text on both sides of page
7. Indistinct, broken or small print on several pages
8. Print exceeds margin requirements
9. Tightly bound copy with print lost in spine
10. Computer printout pages with indistinct print
11. Page(s) lacking when material received, and not available from school or author.
12. Page(s) seem to be missing in numbering only as text follows.
14. Curling and wrinkled pages
15. Dissertation contains pages with print at a slant, filmed as received
16. Other

____________________________________________________________________________

____________________________________________________________________________

UMI
QUALITY CIRCLES AND THEIR EXISTENCE
IN PRESENT-DAY HIGH SCHOOLS

by
Fernando Francisco Padró

Copyright © Fernando Francisco Padró

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF TEACHING AND TEACHER EDUCATION
In Partial Fulfillment of the Requirements
For the Degree of
DOCTOR OF PHILOSOPHY, WITH A MAJOR IN
SECONDARY EDUCATION
In the Graduate College
THE UNIVERSITY OF ARIZONA

1988
As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Fernando F. Padro entitled Quality Circles and Their Existence in Present-Day High Schools.

and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of DOCTOR OF PHILOSOPHY.

Dr. Lawrence M. Aleamon
Date May 10, 1988

Dr. Paul M. Allen
Date May 10, 1988

Dr. Wilbur S. Ames
Date May 10, 1988

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

Dissertation Director
Date May 10, 1988
STATEMENT BY AUTHOR

This dissertation has been submitted in partial fulfillment of requirements for an advanced degree at the University of Arizona and is deposited in the University Library to be made available to borrowers under the rules of the Library.

Brief quotations from this dissertation are allowable without special permission, provided that accurate acknowledgement of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the copyright holder.

SIGNED: [Signature]
ACKNOWLEDGMENTS

I want to take this opportunity to dedicate this work to my parents—Fernando Padró Guiot, M.D., M.P.H. and Helen K. Padró, M.P.H., LL.B.—who waited for so long for this to end, and whose support means everything to me.

My gratitude and thanks to those faculty members who graciously agreed to serve on the Committee. To Dr. Paul Allen, my appreciation for staying around to help an inherited problem, even after his "official" retirement. To Dr. Wilbur Ames, the "official" co-chairman of the Committee, my gratefulness for his input and his humor which served as a compass to move upward and outward. And my very special thanks to Dr. Lawrence Aleamoni, the Lord Chief High Executioner himself. Without his warm friendship and support I would not be able to finally get through the mire. When chairs were scarce and I went to "unburden" myself, he agreed to take me on and to guide me through to the end. I am also indebted to Margie Aleamoni for being so charming and understanding of this person.

I also want to thank Dr. Richard Erickson and Dr. D. Michael Sacken for serving as the members of the Minor Committee. Their enthusiasm, input, and support were most welcome and appreciated.

My gratitude to Dr. William D. "Don" Barnes for encouraging me to transfer over to Secondary Education, serving as my first doctoral advisor in the Department, and keeping a strong friendship with me and an interest in this work (for which he is mainly responsible) while pursuing the life of a retired professor turned miner-prospector. And to Dr. H. Reynolds Stone, my many thanks for all you have done for me over the years, and for your warm friendship.

Without the close friendship and input Dr. Michael F. Hawke, his wife Laurie, Dr. Christopher G. Johnson, and Ingrid Novodvorsky this work would not have come about so readily. These close friends have put up with a lot, and for this my many thanks. From helping pick up the pieces and being there when I was being literally rebuilt to including me as a member of the entourage, they mean more to me than they realize. All of us are different, but we do make a fine team together.

Finally, I acknowledge my indebtedness to Donna Duncan, the Administrative Assistant in T.T.E. Her friendship and support have meant the difference in many instances. Thanks! And to my late friend, Dr. Dionisie Trifan, thank you for our many discussions in music, friendship, and your wonderful sense of humor.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
</tr>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
</tr>
<tr>
<td>ABSTRACT</td>
</tr>
<tr>
<td>CHAPTER 1: THE PROBLEM</td>
</tr>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Rationale for the Study</td>
</tr>
<tr>
<td>Statement of the Problem</td>
</tr>
<tr>
<td>Objectives of This Study</td>
</tr>
<tr>
<td>Assumptions Underlying the Study</td>
</tr>
<tr>
<td>Limitations of the Study</td>
</tr>
<tr>
<td>Definitions of Terms Used</td>
</tr>
<tr>
<td>Organization of Remaining Chapters</td>
</tr>
<tr>
<td>Summary</td>
</tr>
<tr>
<td>CHAPTER 2: REVIEW OF THE RELATED LITERATURE</td>
</tr>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>The History of Quality Circles</td>
</tr>
<tr>
<td>What is a Quality Control Circle?</td>
</tr>
<tr>
<td>Where Does Theory Z Enter and What About the M-Form Society?</td>
</tr>
<tr>
<td>How to Set Up a Quality Circle</td>
</tr>
<tr>
<td>1. Select a two-man team.</td>
</tr>
<tr>
<td>2. Research and learn as much as you can.</td>
</tr>
<tr>
<td>3. Attend a Seminar.</td>
</tr>
<tr>
<td>4. See Q-Cs in Action.</td>
</tr>
<tr>
<td>5. Decide to Start.</td>
</tr>
<tr>
<td>6. Select a Facilitator.</td>
</tr>
<tr>
<td>7. Form a Steering Committee.</td>
</tr>
<tr>
<td>8. Develop Plans and Goals.</td>
</tr>
<tr>
<td>9. Present the Plan to Management and the Union.</td>
</tr>
<tr>
<td>A. Middle management</td>
</tr>
<tr>
<td>B. Unions</td>
</tr>
</tbody>
</table>
### TABLE OF CONTENTS -- continued

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Develop Training Material.</td>
<td>100</td>
</tr>
<tr>
<td>11. Present the Concept to the Group.</td>
<td>101</td>
</tr>
<tr>
<td>12. Start Training.</td>
<td>103</td>
</tr>
<tr>
<td>13. Form Circles.</td>
<td>129</td>
</tr>
<tr>
<td>14. Review Monthly Progress.</td>
<td>130</td>
</tr>
<tr>
<td>Shortcomings of Quality Circles</td>
<td>134</td>
</tr>
<tr>
<td>Quality Circles and U.S. Education</td>
<td>152</td>
</tr>
<tr>
<td>Summary</td>
<td>156</td>
</tr>
</tbody>
</table>

### CHAPTER 3: RESEARCH PROCEDURES

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>157</td>
</tr>
<tr>
<td>The Questions Asked</td>
<td>159</td>
</tr>
<tr>
<td>The Sample</td>
<td>159</td>
</tr>
<tr>
<td>The Study</td>
<td>160</td>
</tr>
<tr>
<td>Format of the Questionnaire</td>
<td>161</td>
</tr>
<tr>
<td>Analysis of the Data</td>
<td>167</td>
</tr>
<tr>
<td>Summary</td>
<td>169</td>
</tr>
</tbody>
</table>

### CHAPTER 4: PRESENTATION AND ANALYSIS OF THE DATA

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>170</td>
</tr>
<tr>
<td>Demographic Data</td>
<td>171</td>
</tr>
<tr>
<td>Findings</td>
<td>185</td>
</tr>
<tr>
<td>I. Active Participation</td>
<td>185</td>
</tr>
<tr>
<td>II. Ties Between Administration and the Teacher Association</td>
<td>186</td>
</tr>
<tr>
<td>III. Acquaintance with Q-C model or associated models</td>
<td>187</td>
</tr>
<tr>
<td>IV. Official Decision Making Policy in Place</td>
<td>189</td>
</tr>
<tr>
<td>V. An Official Quality Control Mechanism</td>
<td>194</td>
</tr>
<tr>
<td>VI. Presentations on Quality Circles</td>
<td>196</td>
</tr>
<tr>
<td>VII. Training in Problem Solving</td>
<td>199</td>
</tr>
<tr>
<td>VIII. Training in Interpersonal Communication Skills</td>
<td>199</td>
</tr>
<tr>
<td>IX. Coordination of Committee Related Activity</td>
<td>200</td>
</tr>
<tr>
<td>X. Public Recognition of Committee Activities</td>
<td>202</td>
</tr>
<tr>
<td>XI. Flexibility to Encourage Innovation</td>
<td>205</td>
</tr>
<tr>
<td>XII. Reputation for High Standards</td>
<td>207</td>
</tr>
<tr>
<td>XIII. Administrative Trust of Teacher Judgment</td>
<td>209</td>
</tr>
<tr>
<td>XIV. Voluntarism</td>
<td>210</td>
</tr>
<tr>
<td>XV. The Nature of Committees</td>
<td>211</td>
</tr>
<tr>
<td>XVI. Task-Orientation of Committee Activity</td>
<td>215</td>
</tr>
<tr>
<td>XVII. Selection of Solvable Problems</td>
<td>215</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS -- continued

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>XVIII. Facing the Facts Realistically</td>
<td>218</td>
</tr>
<tr>
<td>XIX. Reliance on Participant's Role</td>
<td>219</td>
</tr>
<tr>
<td>XX. Where Decisions are Made</td>
<td>221</td>
</tr>
<tr>
<td>XXI. Use of Written Guidelines</td>
<td>222</td>
</tr>
<tr>
<td>Statistical Significance</td>
<td>223</td>
</tr>
<tr>
<td>Aggregate Responses</td>
<td>224</td>
</tr>
</tbody>
</table>

CHAPTER 5: SUMMARY AND RECOMMENDATIONS                                  | 227  |
| Importance of the Study                                                | 227  |
| Summary of the Study                                                   | 232  |
| Summary of the Findings                                                | 234  |
| Recommendations                                                         | 240  |
| Suggestions for Future Research                                        | 242  |
| Implications                                                           | 243  |
| Summary                                                                | 245  |

APPENDIX A: INSTRUMENT USED FOR DATA COLLECTION                         | 247  |
APPENDIX B: INSTRUMENT WEIGHTING FACTORS                                 | 251  |
APPENDIX C: POOL OF QUESTIONS FROM AVAILABLE SOURCES                    | 263  |
APPENDIX D: ABSTRACT PRESENTED TO THE SCHOOL DISTRICTS FOR PRINCIPAL AND BOARD APPROVAL | 282  |
LIST OF REFERENCES                                                      | 288  |
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>History of Quality Progress in Japan</td>
<td>46</td>
</tr>
<tr>
<td>Table 2</td>
<td>Quality Circle Progress</td>
<td>61</td>
</tr>
<tr>
<td>Table 3</td>
<td>Training Materials for Quality Circles</td>
<td>105</td>
</tr>
<tr>
<td>Table 4</td>
<td>Quality Circle Training for Top Management</td>
<td>108</td>
</tr>
<tr>
<td>Table 5</td>
<td>Quality Circles training for Middle Management</td>
<td>109</td>
</tr>
<tr>
<td>Table 6</td>
<td>The Role of the Facilitator</td>
<td>111</td>
</tr>
<tr>
<td>Table 7</td>
<td>Selection Criteria for Quality Control Facilitators</td>
<td>114</td>
</tr>
<tr>
<td>Table 8</td>
<td>Training Program for Facilitator</td>
<td>115</td>
</tr>
<tr>
<td>Table 9</td>
<td>The Role of A Circle Leader</td>
<td>120</td>
</tr>
<tr>
<td>Table 10</td>
<td>Quality Circle Leader Selection Criteria</td>
<td>122</td>
</tr>
<tr>
<td>Table 11</td>
<td>Leader's Training Program</td>
<td>124</td>
</tr>
<tr>
<td>Table 12</td>
<td>Quality Circle Charter</td>
<td>131</td>
</tr>
<tr>
<td>Table 13</td>
<td>Profile of the Administrators</td>
<td>173</td>
</tr>
<tr>
<td>Table 14</td>
<td>Profiles of Department Heads and Teachers (Including Specialists)</td>
<td>174</td>
</tr>
<tr>
<td>Table 15</td>
<td>Profiles of Tenured and Non-Tenured Teachers</td>
<td>176</td>
</tr>
<tr>
<td>Table 16</td>
<td>Master Teacher Classification</td>
<td>178</td>
</tr>
<tr>
<td>Table 17</td>
<td>Master Teacher Response in Three School Districts</td>
<td>179</td>
</tr>
<tr>
<td>Table 18</td>
<td>Pearson R for Items 30 Through 44</td>
<td>225</td>
</tr>
</tbody>
</table>
Table 19: Aggregate Total--frequency of Responses Indicating the Presence of Q-C Activity . . 226
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>The Deming Wheel</td>
<td>49</td>
</tr>
<tr>
<td>2-2</td>
<td>Number of Companies Using Quality Circles</td>
<td>55</td>
</tr>
<tr>
<td>2-3</td>
<td>Fishbone Diagram: Heading of Causes</td>
<td>127</td>
</tr>
<tr>
<td>2-4</td>
<td>Cause and Effect Diagram</td>
<td>128</td>
</tr>
<tr>
<td>2-5</td>
<td>1980's Worker Groups Based on Motivation: The Old Guard</td>
<td>137</td>
</tr>
<tr>
<td>2-6</td>
<td>1980's Worker Groups Based on Motivation: The New Worker</td>
<td>138</td>
</tr>
<tr>
<td>2-7</td>
<td>Quality Circle Structure</td>
<td>149</td>
</tr>
<tr>
<td>4-1</td>
<td>Respondent's Knowledge of Q-Cs and Related Models</td>
<td>188</td>
</tr>
<tr>
<td>4-2</td>
<td>MBO and Quality Control at the High School</td>
<td>190</td>
</tr>
<tr>
<td>4-3</td>
<td>MBO and Quality Control in the District</td>
<td>191</td>
</tr>
<tr>
<td>4-4</td>
<td>MBO as Official Policy: High School and District</td>
<td>192</td>
</tr>
<tr>
<td>4-5</td>
<td>Q-C Preparation Activities</td>
<td>197</td>
</tr>
<tr>
<td>4-6</td>
<td>Reputation for High Standards</td>
<td>204</td>
</tr>
<tr>
<td>4-7</td>
<td>Flexibility and Trust</td>
<td>206</td>
</tr>
<tr>
<td>4-8</td>
<td>Ad-Hoc Nature of Committees</td>
<td>212</td>
</tr>
<tr>
<td>4-9</td>
<td>Responses to Items 39, 40, 41, 42</td>
<td>217</td>
</tr>
<tr>
<td>4-10</td>
<td>Comparison of Items 39 and 42</td>
<td>220</td>
</tr>
</tbody>
</table>
ABSTRACT

Circles exploit teamwork by emphasizing on the techné of each individual member of an organization. In particular, Q-Cs rely on self-actualization on the part of each participant to want to do their best for the group. The literature on Quality Circle in education is scarce, but there have been attempts to define these in terms of administrative and classroom activities. If one takes the notion of the teacher as the center of attention and the focus of activity, Circles help in allowing for students to interact more fully with a specific task. And if notion of teamwork is taken, Quality Circles become a mechanism whereby the teachers can add their expertise and different scanning perspective to help the school improve its performance and its product.

In Southern and Central Arizona, school districts are not using Q-Cs in name or in fact. Although there are some trends which can allow these to be formed, once a decision is made to include teachers in making decisions for the more substantive issues, for the most part what exists is the traditional approach to management.
CHAPTER 1
THE PROBLEM

Introduction

In 1983, the United States National Commission on Excellence in Education came out with its report, *A Nation at Risk: the Imperative for Educational Reform*. In a nutshell, the Commission indicated that there was a real need to reform the educational systems found in the United States. Although the primary focus was on curricular matters, there was also a belief inherent in the report which stated that there is also a need to overhaul the administrative aspect of the schools as well (1983, p.32).

During the 1970's one of the major managerial models in vogue was the *Management by Objectives* (MBO) model. MBO, in its essence, presumes that "management of our affairs on a continuous basis requires that we define objectives before we release the energy or resources to achieve them." (Odiorne, 1969, p. 8) This managerial approach was followed by William Ouchi's (1981) *Theory Z* and Pascale and Athos' *The Art of Japanese Management* which focus on increasing productivity and institutional efficiency by emphasizing the four "soft S's: skill, staff, style, and superordinate goals along with the three "hard" skills of strategy, structure
and systems (Nonaka and Johansson, 1985, p. 181). Together, these concepts brought a new perspective on how to "better" the managerial process of the organization by stressing closer attention to the human component rather than just on the production function.

The fiscal problems of the nineteen seventies after the Arab Oil Embargo of 1973 (which lasted until the first two years of the nineteen eighties) made any effort which looked at improvement centered on better utilizing the available dollars rather than looking for increases very attractive. This attractiveness was compounded by the feeling that the superiority of the United States' national productivity was being challenged by Japan, who used many of these "soft" measures to produce high quality, lower costing products. Thus, many of the cries for reform of the time called on how to regain the U.S.'s position and prestige by revitalizing out operational system with those "new" and "vital" elements which the Japanese were using all to well (see (Mirza, 1985, p. 23).

What A Nation at Risk indicated was that one of the major problem in the erosion of U.S. productivity was the present educational system (1983, pp. 8-10). More to the point, the Commission identified the high school as being the "weak link" of the school system (Altbach, 1985, p. 19), bringing again to it concerns which had been identified

Up to this time, the typical managerial models which were utilized were still primarily based on classical or "Taylorian" management theory (Callahan, 1962, pp. i-ii), but there had been more than a cursory interest on MBO. Management by Objectives was a natural fit for schools in that it followed many of the tenets which teachers had been practicing in developing their lesson and unit plans. It was simply a furthering of the concept to the management of the school. Therefore, there was more than a passing interest when the concepts which were embodied in Theory Z came to light.

One of the major concepts which was discussed Ouchi, and the one which took on an immediate appeal was, ironically enough, that of the Quality Circle (Q-C). The Q-C was established in Japan but initially influenced by the managerial theories from the United States.

It is a very specific design in which participative management styles are emphasized without trying to directly compete with the existing power demands of any given bureaucratic framework (Shea, 1986, p. 33). In particular, Quality Circles look at the role of permanently placed ad-hoc committee activity, composed primarily from the "people in the trenches" (as acknowledged experts in a specified area) and some elements of management for the purpose of
considering institutional issues and problems, which the members of the Circle identify and try to resolve (Dewar, 1980, pp. 1-2, 35; Ross and Ross, 1982, p. 5). The concept is relatively simple (Mohr and Mohr, 1983, p. 23), but the process is more complicated than it seems on the surface (Robson, 1985, p. 158). It requires individuals to strongly identify with the system, and a peripheral structure which exists side-by-side with the existing bureaucracy.

The purpose of this investigation is to look at Quality Circles and their existence in today's high school. It is interesting to note that the literature in Higher Education states that a system similar to Q-Cs has been in place for quite some time, even as early as 1962 (Wyer, 1982, pp. 112-113). Thus the question of "why not in the high school?" becomes an obvious one, especially since as Edward Lilly points out:

Public schools today are characterized by the widespread use of groups in various contexts. Autonomous work groups, conventional work groups, and decision-making and problem-solving groups are among the many types common to educational organizations. Perhaps more than at any other time, school administrators are recognizing the potential power of groups, and attempting to harness it in order to further the goals of the school system. (1985, p. 1)

**Rationale for the Study**

There are two major rationales for this study. The first one is whether or not the management of a high school can be improved by the adoption and use of a management
model developed in business and industry. The second rationale is the history behind the reform movements which education in this country has faced so far this century.

1. Can a management model developed by business or industry improve the management of a high school?

Berliner (1982) makes the point that teachers, as a matter of course, share many of the same functions that executives do. Unfortunately, as Lortie (1975) found out, these are done in relative isolation due to the inherent limitation of time, space, and budget (Little, 1986, p. 1). Thus administrators are not the only individuals who face these issues.

However, the "organizational climate" which is in place in many of today's high schools do not reflect this attitude. Instead, a change in the structure of schools has to come through attempts at changing the "ecology", ie. organizational climate". In the view of writers like Snyder and Anderson (1986) and Wynn and Guditis (1984), for example, "positive change" requires the emergence of a new paradigm involving expanded roles for teachers in school decision making. Specifically, Snyder and Anderson see lessons which can be learned from Japan as one of the key avenues for developing a new paradigm.

Japanese industrialists have demonstrated that worker involvement in goal-setting, work process refinement, and assessment is central to their production achievements (Ouchi 1980). If we assume that co-involvement is essential to organizational growth, then what is the
nature of this involvement? Mink (1979,13) suggests that the process of self-organization in open systems generates an energy exchange system (its). Internal organizational responsiveness, he observes, is mainly through collaboration rather than through imposition by authority, with a work focus on goals, planning, and acting. Creativity, responsibility, and growth are natural outcomes of staff responsiveness to changing conditions as groups focus their energy on goals. (Snyder and Anderson, 1986, p. 27)

But more importantly, changing the "ecology" of schools would mirror the efforts toward "improvement" and "success" which American industry is presently undergoing in order to prepare for the "trade wars" of the nineties (Altbach, 1985, p. 20).

Quality Circles represent many of these changes which are being sought for the high school. As a model, Q-Cs define many of the issues which critics see as important: acknowledgment, participation, task orientation, and voluntariness. Do these exist in what can be an ossified Taylorian system? Better yet, is there a calcified bureaucracy in place to begin with?

Using Q-Cs as the focus for an investigation requires that the people who are part of the organizational structure analyze the system from their own vantage point. So when one looks for this type of activity, it is imperative to see the system as the participants do. This gives an obverse perspective to the study of the high school's bureaucracy, something which is rare in the literature. Rather than asking the teachers and the administrators to what they see
as salient features in the school's and/or district decision making capacities, these individuals are asked how do they interact with the decision making processes which are in place. As a result, the strengths and weaknesses of teacher involvement in school matters can be brought out to the fore with ease.

Tangentially, however, Circles also offer a look at another problem which schools face, credibility. As Harry Broudy observes:

With the loss of administrative credibility for leadership in policy, the lack of professional credibility for control of instruction, and the erosion of the surrogate function, what is left to the public schools as grounds for credibility? (1981, p. 133)

Q-Cs are not designed to work as a part of a "bootstrap project". They are designed to work in stable environments. Their presence requires that there be credibility among the members of the system, even if it is a high school. Furthermore, Quality Circles require that their concepts be understood by all, necessitating that there be a high degree of interaction. Knowledge of the concept itself is essential. So is the training of the participants. According to the advocates of Q-Cs, what results os that when the various elements in the high school share in the decision making, the more an opportunity exists for positive interaction and controlled conflict. This implies stability. And when there is stability within the high school's structure, the
various elements have more time to tend to resolve problems and to "sell" these problems to a critical public.

2. Does history repeat itself?

Unfortunately, as David Berliner points out:

When schools do not appear to function as workplaces they tend to be viewed by the citizenry, at best, as places where learning takes place relatively haphazardly, as in most families and in most secular communities. At worst, when schools are not regarded as workplaces, they are viewed as custodial institutions, akin to prisons and hospitals, as adjustment centers for the pubescent, or as recreational providers for the community at large. (Berliner, 1982, p. 7)

Right now, the public believes that schools are failing in this country. The Commission on Excellence in Education definitely has hit a nerve that is raw. But as stated earlier, these are problems that have been identified before. When it comes to making the necessary changes and reforms to improve education:

While there have been reforms mandated, it is by no means clear that the changes the states are initiating will be translated into practice or, if put into practice, that they will have the intended effect. Histories of school reform indicate that it will take more to change educational practice than enacting legislation that calls for curricular revision, higher standards, and "excellence". Reforms of the past have often been nothing but a series of paper recommendations that were revived, or forgotten, ten years hence. (Kelly and Seller, 1985, p. 253)

Therefore the question which needs to be asked is whether or not this reform movement is one which is going to adhered to or, is it simply a fad as many of the others seem to be?

Changes in approaches to management are harder to look for when compared to the many curricular issues which
reformers have addressed for the high school. Currently, these changes have taken on the form of looking at the relationship between the teachers and the managing of the school. In particular, recent research indicates that there is a growing alertness to the status of the teacher as a professional (Little, 1986, p. 1) and how this alertness translates to the degree of influence which teachers have in helping the school make decisions (Snyder and Anderson, 1986, p. 42). But as Snyder and Anderson point out, there is still a high degree of resistance to grant this higher degree of influence (ibid, p. 41).

Quality Circles themselves have proven to be a fad since few individuals seem to hear much about them in the last couple of years. However, Q-Cs have evolved into other types of managerial models. Inasmuch as MBO is an important part of Q-C activity, Circles themselves are a key element to other approaches to management such as Total Quality Control (TQC) and Quality of Work Life (QWL). Thus we can see the effect that Circles had on the administrative structure of the high school, whether it was temporary or adopted as a "permanent" part of the system.

**Statement of the Problem**

The focus of this investigation is twofold. First, does a Quality Circle exist as an official approach to management at the high school? Secondly, if Q-Cs are not an
official part of the school's administrative climate, do the activities present in the high school's decision making processes possess the attributes of informal Circle activity?

Objectives of this Study

The underlying premise of this query is that, as Butts indicates:

The structure, or, rather, structures of the American school system went through many modifications in the first half of the twentieth century in response to increased enrollments, community demands upon the schools, and the constantly changing plans of educators to meet new needs. The organization of educational institutions varied from state to state and with many localities in many states. This variation imparted flexibility and the ability to adapt to different conditions, but it also means a weakness of an unequal quality and quantity of education provided in different parts of the country. (1947, p. 628)

And the same holds true today as exemplified by the issues tackled by the Holmes Group Report (Cuban, 1987, pp. 41-43).

Today,

... the significant improvement of American education can only come about if three changes are made: (1) radical revision, in the direction of lengthier and more extensive preparation, of statutes and standards governing the education and certification of teachers and administrators; (2) substantial increase in the resources made available by taxpayers and also by other agencies to the enterprise of public schooling; and (3) a major shift, ... in the ways that schools are organized and managed. (Snyder and Anderson, 1986, p. 35)

The Quality Circle tackles these issues when it is in place. Therefore, the objectives of this study center around
questions which attempt to look at whether change has occurred, and how.

The first question focuses squarely on the issue of whether or not there is a Quality Circle present in the high school.

1. Is there a Quality Circle in name or de facto within the existing framework of the school bureaucracy?

If there is no "official" Q-C policy present, the focus shifts to:

2. Can the salient features of the high school's climate be distinguished to see whether or not these elements fall under the definition of Circle activity?

Specifically,

2a. Who is involved in such an activity?

2b. Is this type of activity formal or informal in its modus vivendi?

2c. Is participation voluntary?

2d. Is the type of committee activity dependent upon organizational structure?

2e. Are the Circle's recommendations enacted by the administration?

2f. Is there any type of training for members involving problem-solving and interpersonal relation techniques?

2g. Is there any recognition or reward for this type of activity within the school system?

2h. Are there guidelines handed out on how to be good committee members?
The following objectives fall under the premise of the first question.

* Ascertain whether or not there is actually a Quality Circle movement underway in a given high school or school system.
* Establish whether or not there is a pattern of high use of committee decision making in the high school and/or school system in general.
* Identify whether or not there is participative interaction in decision making among the various "official" lines of communication.

In terms of the second question, the following objective is applicable.

* Determine the degree of correlation between those activities found in the high school's decision making process and the attributes which are demonstrated by the presence of Q-C activity.

Question 2a looks for the following:

* Identify who the key participants are in most of the committees constructed.
* Establish the degree of administrator involvement with the committees.
* Identify the degree of teacher involvement with committees.
* Identify the degree of committee-related interactions between the teachers and the administrators.

The objectives for researching question 2b—the status of the committees—are as follows.

* Establish whether or not the committee decision making procedures are officially sanctioned by the school system bureaucracy.

* To be able to differentiate whether or not the efforts are individually based or institutionally directed.

For question 2c, voluntarism, the objectives are to:

* Identify the degree of personal involvement in the decision making structure of the school.

* Establish whether or not committee assignments are mandated by the administration.

* Identify the degree of freedom teachers and administrators have in joining or leaving committees.

For question 2d, the dependence of committee activity on the bureaucracy (as the official line of communication), the objectives are as follows:

* Determine whether or not a grass-roots effort is possible.

* Ascertain the level of legitimacy given to these types of committee activities.
* Identify the "official" degree of support that such types of activity have.

Question 2e, the degree of attention paid to the recommendation of the committees, involves the following objectives.

* Establish the degree of influence these committees have on decision making at the school and/or school system.
* Identify the degree of commitment that the school bureaucracy has on committee action.
* Ascertain whether or not the recommendations are seen as being valid by the school bureaucracy.

Question 2f, training procedures for committee participants, has the following objectives in mind.

* Identify whether or not in-service programs in schools involve training in decision making techniques.
* Ascertain whether or not teachers and administrators are trained for committee activities.
* Establish whether or not there is a formal in-service program in place.

The following objectives follow the premise of question 2g--recognition for action.

* Ascertain whether or not successful participants are acknowledged in some sort of public manner.
* Identify whether or not individual members see participation as being worth their while.
* Establish whether or not there is a built-in attraction for becoming involved in institutional problem-solving that is not monetary in nature.

Finally, question 2h, the use of guidelines for committee activity has the following objectives in mind.

* Identify whether there is an attempt to clearly define the role of committee members as participants.

* Focus on the degree of preparation which the administration gives individuals for committee activity.

**Assumptions Underlying the Study**

For the purpose of this study, the following assumptions are made:

1. Schools are a bureaucracy where identification of role is synonymous with personal power.

2. Schools, as other organizations, can be broken down into three functional components (entrepreneurial, administrative, and engineering), each with their own sense of identity and outcomes (Hambrick, 1981, p. 299; Miles and Snow, 1978, p. 22).

3. The degree of power of an individual inside an organizational structure is relative to the ability of reducing alternatives (Hickson et. al.,
1971, p. 219; Pfeffer and Salancik, 1978, p. 167),
ie. being able to influence or control what
decisions are made.

4. Quality Circles, although formal in nature, can
exist in an informal manner under certain condi-
tions.

5. Information is an important aspect of power
(Simon, 1957b, p. 167) within a school
bureaucracy.

6. Information is a key resource in diagnosing the
effectiveness of the organization's decision
making process (Likert, 1967, p. 128).

7. Scanning functions follow traditional structures
of power and authority (Aguilar, 1967, pp. 1-2).

8. Participative management techniques can be a way
to improve organizational climate as well as foster
increased productivity under a stable organiza-
tional environment.

9. The lower the level of power, the lower the
identification with the overall organization
(Simon, 1957b, p. 217). Or, the one is further
down the organizational ladder, the more the
individual is going to pay attention to its
immediate task.

10. Along with a sense of adequacy (a feeling of self
worth), function becomes a surrogate for coping
(ibid, pp. 212-215; Hambrick, 1981, p. 256), i.e. the better an individual's role in the organization is understood by that individual, the more comfortable he or she is going to feel.

Limitations of the Study

The scope of this study is concerned only with the opinions of those individuals involved in the working of school systems. Therefore the following limitations must be understood.

1. The findings of this study are limited to participants' perceptions of the managerial "climate" or "ecology" which enables the bureaucratic framework to function. The purpose here is to only ascertain whether or not teachers and administrators believe that a setting exists for the specific purpose of establishing an approach toward institutional problem-solving.

2. The findings of this study are focused on the macroscopic or metalevel of school systems, i.e., the district as a whole. This study is not aimed at establishing specific patterns of management at individual schools or trying to identify leadership styles which are present in administrators and other key personnel. The only interest is to establish how the members of the system (the
administrators, specialists, and teachers) perceive the patterns of institutional responses as these involve their own sense of "worth".

3. No attempt is made to understand the various levels of sophistication which school teachers or administrators have regarding management theory and how this knowledge affects the patterns of management.

4. There is no comparison made between the respondents' knowledge of Quality Circles as contrasted to "Theory Z". It is usually assumed that an individual who understands the concepts of "Theory Z" is aware of what Quality Circles are and their role in the organization's bureaucracy. These two concepts are highly complementary to one another, with "Theory Z" being primarily responsible for the initial popularity of Q-Cs in the United States. To be aware of one concept and not the other may indicate that there is confusion in the mind of whosoever has done some research in the area.

5. The focus of this study is based on small to mid-sized school districts in Southern and Central Arizona which only have one or two high schools. Therefore, there is no attempt to establish a relationship between the existence of or ability
of Quality Circles to exist in high schools and the size of the school district, nor is there an attempt to make conclusions beyond the area sampled. The study is designed simply to investigate a regional response to the national challenge to improve the school's administrative structure as part of bettering the overall quality of education afforded to the students.

Definitions of Terms Used

Because of the multi-disciplinary nature of this investigation and of many of the concepts involved herein (Bullock and Conrad, 1981, p. xi), it may be worthwhile to stop for a moment and remember the definition of some key terms in order to clarify some of the issues which come to the fore in describing the process of a Quality Circle.

Beginning or Apprentice Teacher:
The first level in a career ladder or professional development plan for teachers. Individuals at this level are considered to be undergoing "on-the-job training". Teachers at this level have not achieved tenure, having a maximum of three to five years in the teaching profession. (Tennessee Master Teacher Plan, 1983, p. 2)
Bureaucracy:

An "organizational condition under which the vested interests of the corporate body of organizational decision-makers prevail over and above the goals which a given structure is supposed to fulfill." (Matejko, 1986, p. 231) It is not on element of the organization but a set of variables within the overall structure and situations acting as one, "(t)hus one could relate centralization to the amount of horizontal and vertical integration between individuals, specialization to development of group ideologies, and flexibility to the maturity of interpersonal relationships." (Pugh and Hickson, 1975, p. 41)

Central Administrator:

Individuals in the bureaucracy of the school system who are directly linked with the governance of the entire school district rather than a specific high school. These persons work under the supervision of the Superintendent.

Counselor:

"(T)o provide a helping relationship with students which enables them to examine and cope with their developmental concerns." (Peters and Shertzer, 1974, p. 142)
Decision Making:

"Selecting and Committing oneself to a course of action." (Anderson et. al., 1981, pp. 73-74) Decision Theory, as a branch of study, helps in creating a set of normative models which are multiattributable for the purpose of identifying ways of action leading to decisions (ibid, p. 75).

Department Head:

The chief manager for a specified department as these are defined in the high school's formal structure. This individual is also the representative of the department in the management and governance structures of the high school and the school district (Millett, 1980, p. 156, op. cit.).

Educational Specialists:

Individuals whose professional training identifies them as crucial to the overall operation of the high school who are not directly in the classroom environment but round out the educational opportunities for the students on a full-time basis such as the librarians and counselors. (cf. Castetter, 1976, p. 100; cf. Peters and Shertzer, 1974, ch. 6)
Governance:

"The authority and responsibility to make basic decisions about the purpose of an enterprise, the policies of an enterprise (such as pricing and quality of products), the programs of the enterprise, and the allocation of resources within the enterprise." (Millett, 1980, p. 19)

Librarian:

"... their function [is] to help the individual find information and, in addition, assist him in reaching his highest level of self-realization." (Peters and Shertzer, 1974, p. 151)

Management:

Includes work planning and work performance which involve both output and support programs (Millett, 1980, p. 17). It tries to attain organizational goals efficiently and effectively (Bullock and Conrad, 1981, p. 1).

Master Teacher:

Highest rung in a career ladder or professional plan for teachers describing an individual with at least five years experience at the senior teacher level, usually indicating a minimum of thirteen years in the
teaching field (Tennessee Master Teacher Plan, 1983, pp. 3-4).

Organizational Climate (or Environment):
The "clearly defined patterns of activity in which, ideally, every series of actions is functionally related to the purposes of the organization." (Merton, 1957, p. 195) The three most elemental characteristics are (1) the concentration of power and authority, (2) the availability of resources, and (3) the interconnectedness which exists within the context of the bureaucracy (Pfeffer and Salancik, 1978, p. 68).

Organizational Culture:
It is an informed understanding of the way "we do things around here", here being the functional role of the unit, or "what keeps the best moving roughly west" The elements are shared values and beliefs..." (Deal and Kennedy, 1983, p. 14; see Hambrick, 1981, p. 254)

Organizational Effectiveness:
"(A)n external standard of how well an organization is meeting the demands of the various groups and organizations that are concerned with its activities." (Pfeffer and Salancik, 1978, p. 11)
**Organizational Efficiency:**

"(A)n internal standard of performance. The question whether what is being done should be done is not posed, but only how well it is being done. Efficiency is measured by the ratio of resources utilized to output produced. Efficiency is relatively value free and independent of the particular criteria used to evaluate input and output." (Pfeffer and Salancik, 1978, p. 11)

**Organization Garbage Can:**

These are organizations—or decision situations—characterized by three general properties: (1) problematic preferences, where it is difficult to impute a set of preferences to the decision making process; (2) unclear technology, when the processes of action are not well understood (if at all) by the members of the organization, working on the basis of trial-and-error; and (3) fluid participation, where participants vary in their amount of time and effort they devote to different domains—"involvement varies from one time to another", making the boundaries of the institution uncertain and changing. (Cohen, March, and Olsen, 1972, p. 1)
Power:

"Power is the capacity to affect people, things, situations and decisions." (Lawrence and Lee, 1985, p. 129) The basic power equation as originally derived by Emerson is:

\[
\text{Basis of Power} = F(\text{Resources} \times \text{Importance} \times \text{Scarcity})
\]

where "(t)he dependence of actor A upon actor B is (1) directly proportional to A's motivational investment in goals invested by B and (2) inversely proportional to the availability of those goals to A outside of the A-B relation." (1962, p. 32)

Quality Circle:

The basis of a number of the models established under the name of human resources management (in this study, attention is given to only three of them). The Quality Circle process includes (1) problem identification, (2) problem selection, (3) problem analysis, and (4) recommendations for action (i.e., solutions). For these to take place, the following criteria must be present:
1. membership in the Circles must be made up of individuals who are part of the normal workforce;
2. participation must be voluntary for the most part;
3. meetings need to be held on a regular basis; and
4. members must be trained in problem-solving and group process techniques.

**Quality Control:**

Also known as Total Quality Control. It is an attempt to define pride in terms of workmanship (Schonberger, 1982, p. 29) throughout the whole of the organization as part of policy (Nemoto, 1987, pp. 4, 151). Three principal responsibilities define the function: (1) a business responsibility, whereby quality control provides a major and direct contribution to the planning and implementation procedures of the firm; (2) a system responsibility wherein the primary leadership emanates to insure that quality is paramount throughout the process; and (3) a technical responsibility in order to provide for major assurance activities at the operational level (Feigenbaum, 1983, pp. 159-160).

**Scanning:**

Institutional and extra-institutional contact which is established by members of the institution and referenced into the bureaucratic framework of the institution, usually hierarchical in nature, with information

**Senior Teacher:**
Status within career ladder or professional ladder describing a teacher with more than three years experience beyond receiving tenure, or about eight years or more into the profession (Tennessee Master Teaching Plan, 1983, p. 2).

**Site Administrator:**
Individuals at the high school who have the managerial responsibilities of the bureaucracy. Led by the principal, these individual have duties outside the classroom which focus on the operational aspect of the high school proper from an organizational perspective.

**Strategic Contingency Model:**
A study of organizational response focusing on the organizational use of power (Crozier, 1964, p. 165) and its ability to create responses based on the strategic requirements for institutional behavior. According to Hickson et. al., this approach hypothesizes "that organizations, being systems of interdependent subunits, have a power distribution with its sources and division of labor... "The theory relates the power
of a subunit to its coping with uncertainty, substitutability, and centrality, through the control of strategic contingencies for other dependent activities, the controlling resulting from a combination of these variables." (1971, p. 216)

**Teacher (Professional):**

Second step in a career ladder or professional development plan wherein an individual has received a continuation in the teaching field after three to five years as an instructor (Tennessee Master teacher Plan, 1983, p. 2). Usually this step is commensurate with receiving tenure in the school system.

**Tenure:**

"...a system deigned to provide educators with continuing employment during efficient service, and establishes an orderly procedure to be followed before their services are terminated." (Castetter, 1976, p. 422)

**Organization of Remaining Chapters**

Chapter 2 presents a review of the literature pertaining to the history of the Quality Circle movement, what Quality Circles are, and the strategies for their implementation. Also included is a section of shortcomings as well
as some pages indicating what information is available in terms of their use in American school systems.

The third chapter discusses the research procedures used in this study. Part of the discussion centers on the formation of the questionnaire and how it is to be analyzed. Also touched upon is the sample population sought and reasons for their inclusion in the study.

The data results are presented and discussed in detail in chapter 4. The final chapter, number five, begins with a summary and discussion of the findings followed by the recommendations which can be generated from the results.

**Summary**

There are many problems which the public perceives as needing remedy. Education, in general, is one of these problems. More important, the internal "report cards" which educators and "interested observers" have handed out also show many shortcomings. Historically a number of these have been around for some time. However, this does not mean that they should be ignored.

The call for reform is across-the-board, for the curriculum and for the organizational elements of the school. Snyder and Anderson's (1986) view of changing the school's "ecology" is only symptomatic of such a call to change. More so, such an attitude reflects an introspective turn which organizational theorists are also undergoing, as
exemplified by Alexander Matejko's (1986) text *The Self-Defeating Organization*. There are many external pressures for changes to occur within the school (cf. Canter, 1977, pp.2-3).

In summary, it seems clear that the role of an organization's participants in the decision making process of the organization is related to the extent to which the participants are perceived as members of a professional staff. It is equally clear that there is far from universal agreement as to whether school teachers may be properly considered to be professionals. There is therefore, a great deal of confusion over the extent to which teachers "ought"—as autonomous professional persons—to participate with administrators in the central decision making processes of the school. Moreover, there is another, more compelling, reason for encouraging shared decision making process in schools and all kinds of organizations: the hope that better decisions will be the result. (Owens, 1970, p. 104)

This query is an attempt to study one aspect of the responses at revamping to improve our schools alongside our industrial and organizational aspects of our society. The Quality Circle was one of the first models to be presented in the United States for such a purpose. Its time may be past (Townsend, 1986, pp. 51-52), but Quality Circles still pose to some writers in the field a viable route for organizational change (Snyder and Anderson, 1986, p. 193).

The key to this investigation is that it focuses on the activities of the organization from the point-of-view of the participants: the teachers, the administrators, as well as the other educational specialists at the high school. What is being done here, then, is to analyze the situation; to
understand whether or not Quality Circles are viable given
the present structure of schools. More important, however,
is to understand whether or not this management approach can
help schools better their organizational climate in terms of
satisfaction from an internal operations perspective. To
quote James O'Hanlon:

Many would probably agree with Bruce-Biggs that Theory
Z is simply a "new brand name to peddle an old
ideological package", fit only for a utopian situation. Some will undoubtedly view the Z ideas as too "soft"
and not authority-oriented enough to be effective. If
these ideas have been effective for major corporations,
however, perhaps they do have some power to produce
results. A decision about whether these concepts are
useful for management in education, moreover, should
depend on an analysis of the school situation. (1983,
p. 18)
CHAPTER 2
REVIEW OF RELATED LITERATURE

Introduction

The literature on Quality Circles is scarce (Lilly, 1985, p. 4), often using the term and concept as an element of a second concept being discussed, many times bringing confusion to the concept itself (Shea, 1986, p. 35). Lloyd and Regh see Quality Circles as a part in an institutional response attempting to combine several organizational interventions such as Quality of Work Life (QWL), and Organizational Development (OD) in order to encourage and develop the intelligence of workers and the relationships which exist within the working environment (1983, p. 7, op. cit.). Other authors on Circles such as Ingle (1982, 1985), Ingle and Ingle, (1983), Mohr and Mohr (1983) and Ross and Ross (1982) and Shea (1986, p. 33) agree as well. Another theoretical response within which Quality Circles can be associated (and which is currently holding sway in organizational theory circles) is participative management.

The literature on Quality Circles themselves is therefore limited, and at times a little confusing. In researching the literature, the majority of the texts and articles on the concept of Quality Circles date between 1980
and 1985. Oddly enough, one of the main fears stated directly or indirectly was whether or not Quality Circles are a fad (Joiner, 1985, p. 57), and yet, it seems that as a separate entity Q-Cs (as they are referred to at times) they are becoming less prominent. However, many of the concepts are alive and well, these just belong under a new descriptor (see Allaire and Firsirotu, 1985).

The attempt of this chapter is to put together a coherent set of plans and purposes which best help explain the concept and operation of Quality Circles, an activity made more difficult by the realization that there are four disciplinary approaches--philosophy, economics, marketing, and operations management--involved in analyzing the concept itself (Garvin, 1984, p. 25). The easiest way to do this is to bring together a structure which echoes the primary sources in the literature, thus the subsequent structure of this chapter is broken down into the following categories: The history of Quality Circles; What is a Quality Circle?; How to set up a Quality Circle; Shortcomings of Quality Circles; Quality Circles and U.S. Education; and Summary.

The History of Quality Circles.

In the process of rebuilding Japanese industries destroyed during the war, a large part of the effort was concentrated on improving the quality of their products. . . they learned that quality products will always sell because good quality serves the consumer best. By experience, they learned another important thing: the fact that, as quality control forms an
integral part of the manufacturing process to improve product quality by reducing the production of defective goods, the cost of production invariably decreases. (Karatsu, 1984, p. 9)

A study of the Quality Circle movement begins in Japan (Dewar, 1980, p. 5), but it is primarily an American story exported to Japan, where it was nurtured, made effective and efficient, and returned to the United States for a retrofitting in order to modernize its own house which arguably had become complacent as well as to other industrialized countries desirous of success Japan style--ie., Japanization (Bonnett, 1985, p. 103; Buckley and Mirza, 1985, p. 23; Ingle, 1982, p. 13). So, although the concept as we know it originated in Japan in 1962 (Hutchins, 1985, p. 246), "this seemingly simple concept has now spread with mixed fortunes to every industrialized country in the world." (ibid, 1985, p. 1)

Before 1940, Japan had the reputation for the production of junk merchandise (Dewar, 1980, p. 5). Under the sponsorship of Douglas McArthur after the war, W.E. Deming, among others, was brought in, "to assist the Japanese in raising the quality level of their products." (ibid, p. 6) The first example of Western-style statistical quality control in Japan appeared in the telecommunications industries in 1946 (Hutchins, 1985, p. 246).

Quality Control Circles appeared in Japan as of January, 1949 (Ouchi, 1981, p. 225) [see Table 1]. In 1949,
Table 1
History of Quality Progress in Japan

Pre 1940  Japan known for poor quality.

1946-1950 * Government declared better quality as a national priority.
    * Dr. W.E. Deming gave lecture series on statistical control of quality for Union of Japanese Scientists and Engineers (JUSE).
    * JUSE offers six-month course to industry.
    * Government permits "JIS" symbol for high quality products.
    * Japanese standards association organized to promote quality control.

1951  Deming awards established by JUSE.

1953  Minister of International Trade and Industry (MITI) Awards.

1954  * Dr. Juran lectures of total Quality Circles.
    * Quality is responsibility of all from top management to workers.

1956  Weekly radio series on quality--repeated annually.

1960  * Government declares November of each year as "National Quality Month".
    * Abundance of "Q" flags, seminars, posters, etc.
    * Weekly television series on quality.

1962  * Japan "invents" Quality Circles.
    * Magazine "Q.C. for Foreman" (April).

1963  Top management annual quality audits gain popularity.

1973  * Fantastic growth in Quality Circles--1/2 million circles.
    * 6 million members.
    * Japanese image for high quality is achieved.
Table 1

History of Quality Progress in Japan -- continued

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
</table>
| 1974 | * Annual Quality Circle meetings on an international basis.  
      | * Top twenty Quality Circle leaders sent around the world in recognition of their contribution. |
| 1980 | Goal is to become undisputed world leader in quality. |

MESSAGE: The effort to improve quality begins long before the reputation for quality is achieved.

(compiled from Ingle, 1982, pp. 9-10; Hutchins, 1985, pp. 257-259)
the first legislation designed to upgrade the quality of
Japanese products was adopted (Ross and Ross, 1982, p. 11).

Eighteen months later Deming came to Japan (ibid.).

In 1949 the Union of Japanese Scientists and Engineers
sponsored a quality control seminar. In studying the
foreign literature that was available to them, they
became familiar with the name and reputation of W.
Edwards Deming, a statistician and interpreter of
statistics for the federal government. Early in 1950,
learning that Deming would make a visit to advise the
post-war allied occupation government on the use of
statistical techniques, JUSE wrote to him asking if he
would conduct a seminar for its members... Deming
recalled: "I told them Japanese quality could be the
best in the world, instead of the worst, and they could
transform the phrase 'Made in Japan' from a synonym for
junk into a hallmark of quality." (Ross and Ross, 1982,
p. 10)

The Japanese proved to be excellent and highly receptive
students (Dewar, 1980, p. 6). They were so impressed by him
and his techniques that in 1951 JUSE established the Deming
Prize, given annually, and which are still highly sought
after in Japan by both individuals and corporations (ibid,
p. 7; Hutchins, 1985, pp. 246-247). What Deming did for the
Japanese was to greatly broaden the Japanese perspective of
quality control as a:

...means of becoming more competitive and made them
aware of the value of data analysis as a tool for
improvement. For this purpose, he introduced a wide
range of simple analytical techniques together with the
Plan-Do-Check-Act cycle which Japanese refer to as the
'Deming Wheel'. (Hutchins, 1985, p. 247) [see Figure 2-1]
The Deming Wheel

Plan

Do

Act

Check

Figure 2-1: The Deming Wheel
As Ouchi points out:

While there is no particular magic in the statistical techniques themselves -- they have been widely used in the United States for more than 100 years -- what is different is the determination of the Japanese to invest in teaching these techniques to production-level employees, and then to delegate to these employees the power and authority to influence changes in the organization of work, in order to bring about improvements in quality and productivity. (1981, pp. 225-226)

Together with Deming, Joseph Juran is the other most notable foreigner in the early development of the Japanese quality control concepts. Brought in 1954 to lecture on the subject of "Management of Quality Control", management personnel "found his approach more readily acceptable than statistical quality control." (Dewar, 1980, p. 7) Juran argued that quality control must be an integral part of the management function and practiced throughout the firm (Ross and Ross, 1982, p. 12).

According to Dewar, "Juran's approach to quality laid the framework that help to round out Japan's subsequent successes." (1980, p. 7) What both Deming and Juran emphasized above all else is "easy-to-see quality" (Schonberger, 1982, p. 56): build the production process and the organization so that quality can be easily ascertained by anyone who wants to bother looking at the product or the process.

Juran's presence along with the emergence of labor unrest and indifference which was surfacing at that time helped shape the Quality Control Circles into their present-
day configuration. In the first place, the Japanese had (and still have) a different interpretation of middle management than that of Western countries. "In the Japanese reinterpretation, each and every person in the organizational structure from top management to the shop floor worker was to receive exposure to the methods of statistical quality control." (Ross and Ross, 1982, p. 12) This way, all members of the organization would have a better understanding of what quality should be when looking for it. Secondly, Hutchins makes the argument that during the labor problems of the mid-fifties, the Japanese put the blame on the 'Taylorian' system of management, i.e. the scientific school of management from the USA (1985, p. 248). As the Japanese saw it, too much of the emphasis in this approach to management rested with specialists in various segmented aspects of the organizational structure.

In the Japanese reincarnation (or reorientation), "Quality Control shifted from being a prerogative of a minority of engineers with limited shop experience (outsiders) to being the responsibility of each employee." (Ross and Ross, 1982, p. 12) To do otherwise would be against the norms of the Japanese culture (ibid.; Hutchins, 1985, p. 248) whose antecedents in business structures are based on the commercial house founded by the Mitsui family (Patchin, 1983, p. 12), and on the Japan's active policies in promoting social, infrastructure, and industrial change
since the Meiji Restoration of 1868 (Buckley and Mirza, 1985, p. 20). This is why from 1956 until 1962, the government-sponsored educational radio repeated annually a broadcast of a weekly series on the subject of quality (Dewar, 1980, p. 7).

In the early 1960s Japanese management increasingly moved toward a focus on employee participation in decision making and small-groupism (shōshūdanshugi) (Cole, 1979, p. 132). Much of this was the result of the foremen in Japanese industries who, having received quality training, were wondering what to do with the knowledge they received (Ingle, 1982, p. 10). At this time Kaoru Ishikawa, president of the Musashi Institute of Technology of Tokyo, helped organize Quality Circles in Japan (Patchin, 1983, p. 15). Inspired by many of the American organizational and behavioral specialists (Mohr and Mohr, 1983, p. 13), it was he who suggested that the move toward improved performance and the problems of industrial relation Japan still faced could only be resolved by increasing the job satisfaction of employees (Hutchins, 1985, p. 248). In this regard Ishikawa mirrored Thomas Sandberg's view which indicates that rather than having the individual workers' solution to problems create difficulties for the firm, it is better for the employers if they re-organize in order to reduce differentiation and predetermination (1982, p. 4) of status and roles (Shea, 1986, p. 33, op. cit.).
Worker participation took on the institutional premise that "it was more of a responsibility, and obligation, of each employee rather than the opportunity to express one's talents and take charge of one's own situation and environment". (Cole, 1982, p.97)

QC Circles in Japan were conceived in 1961. During that year the Japanese magazine, Quality Control, sponsored a symposium from which two concepts developed: (1) A quality control magazine directed to shop foremen was necessary. Existing publications tended to be "over the foreman's head." (2) Rarely were foremen included in conferences on the subject of quality control outside of the company. The editorial board of Quality Control took the lead by promoting the inclusion of foremen in the annual quality control conference held during November, 1961. Foremen were invited to take part on the panel. (Dewar, 1980, p. 8)

The actual QC Circle movement in Japan started in 1962 (Ishikawa, 1984, p. 3). The creation followed the premises of the questions:

[1] "Why not form small groups in the shop and teach the workers these techniques?"

[2] "Why not spread the knowledge and ask their help in solving daily [bold by author] problems?"


Ishikawa, as Ross and Ross write,

"brought to management's attention the importance of the contributions that these worker groups could make and were making in improving quality and production systems at the local level. Workers were suggesting changes and solutions not only in scheduling and in the production process but in design changes of the products as well. (1982, p. 13)
In November 1962 the first annual Quality Control Conference for foremen was held, and in 1963 the first Quality Control Circle Conference was established (Hutchins, 1985, p. 249). For example, Toyota began the study of quality control on a company wide basis in 1963 (Nemoto, 1987, p. 4). Regional chapters for QC Circles were established as of 1964 throughout Japan; each chapter was to hold its own conventions and activities for members (Hutchins, 1985, p. 249).

QC Circles took off like wildfire. By June 1967 there were 10,000 Circles registered with JUSE, and by 1969 there were 20,000 (ibid.). 1970 saw the number of Circles registered increase to 30,000 (ibid, p. 250). In 1974 there were approximately 700,000 Circles which were registered with JUSE (Ingle, 1982, p. 11). Throughout this time there have been more than the number registered by JUSE and Ingle believes that as of 1982 it was estimated that "one million circles are in operation and nine to ten million people are involved in these activities." (ibid.) However, a cautionary note on these figures has been pointed out by Cole: "These summary figures are undoubtedly inflated because the data do not strictly discriminate between QC circles and some other form of small group activity such as zero-defect programs, industrial engineering teams, improvement groups, and so on." (1979, p. 137) [see Figure 2-2]
Figure 2-2: Number of Companies Using Quality Circles
(Ingle and Ingle, 1983, p. 74)
From the sixties forward, the Circles have progressed beyond the stage of being a study group at the workshop level using the foreman's magazine, *Gemba to QC*, as a textbook (Schonberger, 1982, p. 183). Specifically, Ishikawa reported that 50 percent of the QC Circles activities were concerned with narrowly defined quality control issues, 40 percent with problems relating to production increase and cost reduction, and the remaining 10 percent with safety and other matters (Cole, 1979, p. 139). The Circles, as Ross and Ross observe, in time have evolved to include:

1. Expanding the QC concept to suppliers and subsidiaries that manufacture parts and provide services to the primary users.
2. Expanding activities beyond manufacturing into areas such as maintenance, procurement, administration, and engineering in a variety of white-collar service firms.
3. Forming joint circles across different functions within the company in order to solve intradepartmental problems.
4. Holding a variety of conferences, conventions, association meetings, and international visits for the purpose of "cross-fertilization".
5. Improving training techniques by including process control charts, advanced statistical methods, regression analysis, and other subjects that go beyond the initial problem-solving techniques taught to beginning circle members. (1982, pp. 13-14)

Cole reports that surveys of QC Circle activities in Japan have shown that forty percent meet once a month, forty percent twice per month, and twenty percent three or more
times in a month (1979, pp. 139-140). The average meeting time is between sixty and ninety minutes, and all members are given assignments to be completed by the next meeting, using both company and non-company time (ibid, p. 140). Fifty percent of the projects were selected by workers and fifty percent by management (ibid.).

The continued success of the Quality Circle movement was tested during the worldwide economic problems of 1974—the Arab Oil Embargo. During this time the Japanese showed a tremendous reluctance to reduce their "red ink" by reducing their work force, demonstrating their traditional commitment to permanent employment -- one of the key reasons as to why Quality Circles have been so successful in Japan (Dewar, 1980, pp. 10-11; see Buckley and Mirza, 1985, p. 25; A. Isikawa, 1985, pp. 38-39). The Japanese labor unions were ill equipped to handle such a long term situation, "and a recession was putting pressure on business to concentrate on maintaining their level of profits, often at the expense of the firm's "social responsibilities" to their employees." (Munchus, 1983, p. 259)

Patchin writes that reports on the flourishing Quality Circles of Japan began to cross the Pacific late in the 1960s and that the first Quality Circle in the United States was established at Smith Kline Instruments of Palo Alto, California in the fall of 1970 (1983, p. 19). The first word came from Dr. Juran when he visited Japan in 1966 and
was impressed by the work carried on in these circles (Ingle, 1982, p. 13).

In 1968 further word of QC Circles was carried from Japan by a visiting team of QC Circle leaders. This team, sponsored by JUSE, was put together to provide the participants the opportunity to learn more about quality control and industrial practices outside of Japan. Typically, each member prepared a paper to present to American audiences. This excursion by a Japanese group of QC Circle leaders has continued as an annual activity and now extends into Europe as well as the U.S. (Dewar, 1980, p. 9)

The first major company to look at Q-Cs was Lockheed. They started them in 1974 (ibid, p. 12). Lockheed was particularly impressed by the degree of worker involvement (Ross and Ross, 1982, p. 15). Effectively, the Lockheed program, along with Honeywell's, was in the public eye (Ingle, 1982, p. 13). They, along with Hughes Aircraft, put their programs into effect in 1974; these would serve as the national prototype for the rest of the U.S. (Mohr and Mohr, 1983, p. 19).

One of the key individuals at Lockheed was Donald L. Dewar. He remembers that:

In November, 1973, the author [Dewar] was one of six Lockheed employees who journeyed to Japan to study QC Circles. This group visited the Circles at a number of Japanese companies; and enthusiasm built as members of the team became more and more convinced that the concept would work in the Western World. The author remained in Japan for sometime, studying the QC Circle idea in depth. . . . The Lockheed people were so convinced that the Japanese model was correct that they did little to change it. (1980, p. 12)

Lockheed's program was set back because of unforeseen difficulties in the company (Ingle, 1982, p. 13), but even
their results were as impressive (Hutchins, 1985, p. 251) as those found at the other firms.

Northrop, in 1978, became another aerospace corporation who turned to the utilization of Quality Circles. Richard Patchin, who in that year was appointed as the director of productivity for the aircraft division of Northrop, utilized the Circles as a way out of a serious problem: the growing disenchantment among members of the work force (1983, p. 23).

In August of that year, six pilot circles were set up. The results were increased productivity and improved communications (ibid, pp. 25-26).

Meanwhile, back in 1977, the International Association of Quality Circles was formed with Dewar as its first president (Dewar, 1980, p. 13). It began and continues to issue a quarterly magazine called Quality Circle. "The magazine publishes many articles on Quality Circles and reviews recent developments in the field." (Ingle, 1982, p. 13) More specifically, the journal has focused on:

[2] Up-to-date current events on Quality Circles.
[3] New techniques used successfully by others.
[5] Special features of interest to management personnel, facilitators, leaders, and members. (Dewar, 1980, p. 14)
As an organization, the IAQC encourages the development of local chapters, sponsors conferences, and offers training courses and materials (ibid.; Ingle, 1982, p. 13). The society has continued to grow, getting more companies involved in implementing the QC Circle programs (Ingle, 1982, p. 13; Mohr and Mohr, 1983, p. 20). Also:

The American Society for Quality Control (ASQC) has created a separate subsection on Quality Circles, and a panel has been formed to collect more details on the subject. The success and growth thus far has been impressive, and future progress will depend on the cooperation between management and the workers. (Ingle, 1982, p. 13)

After the initial program Dewar, along with the two other principals at Lockheed for developing the Circles, Jefferson F. Beardsley and Wayne S. Riecker, left the company to establish consultancies (Hutchins, 1985, p. 251). Thus, according to Hutchins, independently of each other, the three moved to disseminate the concept throughout the United States. [see Table 2] "By the summer of 1982 it was claimed that there were over 5,000 organizations with Quality Circles, including national banks, an airline, the US Air Force, naval dockyards, hospitals, and a wide range of manufacturing organizations." (ibid.) In the same year, a New York Stock Exchange Survey showed that 75% of the large manufacturing companies (those who have over 10,000 employees) utilized Quality Circles while 44% of the total companies with over 500 employees involved themselves in
1962 JUSE published a quarterly magazine "Gemba-to-QC" (Quality Control for Foremen), monthly since 1964. A Quality Circle headquarters was established.

1962 * The first Quality Circle was registered with the Quality Circle headquarters (Matsuyama Carrier Equipment Circle of Japan Telephone and Telegraph Corporation) in May.
    * The first Foreman QC Conference is held in November.

1963 In May, the first Quality Circle conference was held in Sendai, northern Japan.

1965 * Reports on the Quality Circle activities in Japan are presented at EOQC (European Organization for Quality Control) and ASQC (American Society for Quality Control) held in Stockholm (May).
    * First FQC Award is established in November.

1966 Dr. Juran observed Japanese Quality Circle activities. First Quality Circle session at the 10th conference of EOQC was held in Stockholm. (June)

1967 QC Basic Course for foremen start in February.

1968 JUSE sent the first Quality Circle study teams (1FQCT) overseas in April.

1969 Many reports on Quality Circle activities are presented at the International Conference on Quality Control (ICQC) held in Tokyo during October.

1970 * In November, the Fundamentals of the Quality Circle is published by the Japanese Union of Scientists and Engineers (JUSE).
    * During the same month, a QC correspondence course for foremen begins.
Table 2

Quality Circle Progress -- continued

1971
* The first all Japan Quality Circle conference was held in Tokyo in November. Also, the Quality Circle Grand Prize is established at this time.
* Earlier, in August, the 200th Quality Circle Conference was held.

1973
At the beginning of the year Gemba to QC is renamed FQC.

1974
Lockheed Missile and Space Company started Quality Circles in the U.S.

1977
* IAQC (International Association of Quality Circles, U.S.) was created.
* Mexican study team to Japan.

1978
The first International Quality Circle convention.

1978
100,000 registered Circles in Japan (Kanto Auto Works, Ltd.) and Circle concept spreads internationally.

1980
* More than 500 United States companies started Circles.
  * Circle movement in Brazil, Mexico, Argentina, Taiwan, Korea, China, and many other countries.
  * IAQC membership exceeds 1,000.

1982
* In March, International Resource Development Inc. reported that there were 12,424 Circles in U.S. Companies.
  * During the same month, the IAQC National Conference attracted over 2000 people.
  * First Regional IAQC Conference held in Memphis during the month of October.

1984
Membership of IAQC is over 6,000 with more than 70 chapters across the U.S.

(compiled from Ingle, 1982, p. 11; Hutchins, 1985, pp. 257-259)
this approach to management (ibid, p. 259). By 1985, Lawler and Mohrman estimated that over 90 percent of the Fortune 500 companies had some Q-Cs in place (1985, pp. 65-66). "As with Japan, quality circles (or at least their registration) and big organizations seemed to go together."
(Shea, 1985, p. 35)

However, the Q-C picture in the United States has not been completely positive. As Townsend and Gebhardt have indicated:

...like so many culturally based concepts, quality circles have not travelled all that well. In fact, a 1981 survey of Japanese-owned factories in the United States revealed only 20 of 238 had quality circle programs. Taken away from the paternalistic, job-for-life atmosphere of Japanese industry, quality circles just did not seem to be as effective as originally promised. Part of that is due to the numerous variations of quality circles. As Donald Dewar, President of the Quality Circle Institute, points out, "Quality Circles do not do things exactly the same way in every company. Many consultants teach a form of quality circles that is diametrically opposed the theory as we teach it. . .." Based on the number of failed quality circles, professional literature post-1983 began to shift from "Here's why you should" to "What's wrong with" when quality circles were the topic. . . . By mid-1985, it was estimated by one analyst that 50 percent of the quality circle programs that had been started in white-collar environments had subsequently been cancelled. (1986, p. 52)

**What is a Quality Control Circle?**

According to William Ouchi, its most famous exponent, the quality control circle is a process which has the unique function of sharing the responsibility in locating and

The quality circle process, with its participative management style, is a step toward bringing more of the values of our democratic society into the work environment and giving American workers more of what they value most in our culture: freedom of self-expression, equality, and respect for human dignity and individuality. (Mohr and Mohr, 1983, p. 17)

The Quality Control Circle is not an original idea in management (Dewar, 1980, pp. 5-6; Hutchins, 1985, p. 246; Pascale and Athos, 1981, p. 190) or in education (Wyer, 1982, p. 111). It is a "relatively simple process" (Mohr and Mohr, 1983, p. 23) which believes that one of the best approaches toward resolving an internal problem is to put "experts" (Dewar, 1980, p. 35) or "knowledge workers" (Snyder and Anderson, 1986, p. 193) together in order to identify and find the solution (Ross and Ross, 1982, p. 5).

The Quality Control Circle can be integrated into other processes designed to monitor performance (Ingle, 1985, p. 24) or to act as an independent aspect of the bureaucratic response to enhanced performance. These are better known simply as Quality Circles or, in some instances, Productivity Circles or Superteams throughout most of the literature inasmuch as the word control does not sit well with workers and unions (Ross and Ross, 1982, p. 38).

The Quality Circle (Q-C) process is a basic four-step process with eight major identifying techniques (Aquila, 1983, p. 17). The first process is problem identification,
the second is problem selection. Third is problem analysis, and finally, making a recommendation to the managerial element of the organization. In order to get the necessary data, the Q-C members go through:

[1] structured brainstorming and voting;  
[2] data gathering;  
[3] statistical check sheets;  
[4] pareto analysis;  
[5] group dynamics;  
[6] "fishbone" cause-effect analysis;  
[7] process cause-effect analysis; and  
[8] presentation skills.

Q-C's are "voluntary programs: members chose whether to join." (Savage and Romano, 1983, p. 4) "Nobody is paid to join, nobody is forced to join, ... and nobody is penalized for not taking part." (Hutchins, 1984, p. 29) Quality Circles are a small, "formally organized group of workers. The agenda and procedures... are usually quite structured. ... depending on the objectives that are being emphasized." (Schonberger, 1982, p. 185) The orientation is toward a holism, i.e. the importance of each member's role and function in meeting organizational goals Fitzgerald and Murphy, 1982, p. 12).

In many ways, the Q-C is a formalized ad-hoc process which allows for institutional flexibility in responding to different stimuli (Dewar, 1980, pp. 1-2), allowing, as
Cohen, March, and Olsen indicate, institutional solutions to problems which have arisen out of changing conditions (1972, 3-4). The emphasis is on the long term, however, and not on the immediate, "quick-fix" approach toward institutional uncertainty (March and Olsen, 1976, p. 12; Ross and Ross, 1982, p. 38; Stewart, 1982, pp. 1-2), which explains the importance placed on the pareto-type analyses and the existence of the "fishbone" or Ishikawa diagram (Ingle and Ingle, 1985, pp. 124-125) as the backbone of the process.

"Quality circles offer management a deceptively easy way to link two important items on every organization's improvement list: (1) product or output quality and cost control, and (2) quality of work life." (Midwest Intergovernmental Training Committee, 1984, vol. 1, p. 1) However, the team members need to remember that Q-Cs exist to "satisfy the needs and expectations of one or more people outside the team" (Hastings, Bixby, and Chaudhry-Lawton, 1986, p. 32) and not just those of their own.

The basic idea behind the Quality Control Circles, as part of company wide quality control (CWQC) is to:

[1] contribute to the improvement and development of enterprise;

[2] respect humanity and build a worthwhile to live and happy bright workshop; and to

Improvement occurs through "process" innovation rather than by product innovation (Sasaki and Hutchins, 1984, p. v).


The long-term benefits of Quality Circles are (a) enriching the work content by adding new challenges, (b) fostering new professional and social skills through openness and flexibility in the employees interactions with fellow workers, (c) increased personal growth, (d) less alienation and more involvement in the company, and (e) an expansion in the communication processes within the company by having other types of Q-Cs develop in order to better their productivity (Mohr and Mohr, 1985, pp. 183-191).

However, the Q-C is not a panacea. There are many items that should not be considered as part of the Circle's responsibility: [1] benefits and salary, [2] grievances, and [3] hiring and firing practices of the organization (Ross and Ross, 1982, p. 39).

The Quality Circle's greatest strength and most glaring weakness is its view of the division of labor. Although it stresses the link of social solidarity among the participants of the "culture" (Durkheim, 1932, p. 72; Sullivan, 1983, p. 134; Savage and Romano, 1983, p. 9), the division
between staff and line becomes very apparent. The traditional view of a Quality Circle indicates that it is the workers of the assembly line who are brought together with a representative of management to resolve problems of production and not of policy unless these are of a strict procedural nature. Q-Cs are not the program, only one of twenty concepts that work for the fundamental production function of total quality control (TQC) (Schonberger, 1982, p. 187). As Schein puts it, "the current description of the culture of a Theory Z organization have not gone beyond the artifactual and value level." (1986, p. 146) Or as Masao Nemoto, one of the chief architects of Toyota's success, remembers: "The worst cause for confusion seems to come when proper managerial functions are included in QC circle activities." (1987, p. 208)

Quality Circles, in effect, as Wingate Sikes points out,

. . . are not designed to change authority but to change influence. There is a big difference. Decisions remain the province of management; the recommendations of the quality circles provide additional information to be used in making decisions.

(1984, vol. 1, p. 13)

Thus ideally, by implementing the Quality Circle process, most of the problems related to the division of labor can be eased and a team spirit created in the company (Ingle, 1985, p. 194), where everyone's task is understood and seen as an important part of the overall work flow of
the organization. Mohr and Mohr argue that "(t)he success of quality circles within an organization depends on a carefully thought out series of events that are well orchestrated and implemented." (1983, p. 48) Thus,

It can quickly be determined from the above that the installation of quality circles is no quick-and-easy solution that will increase productivity and lead to success. Instead, this carefully designed process requires the motivation and cooperation of management, the union (if applicable), and labor. It is a basic managerial philosophy that requires time and effort to be established as a cooperative effort throughout the organization. (Ross and Ross, 1982, pp. 39-40)

What makes the Q-C work is its ability to make the employee feel that he is a contributing member of the organization (Harshman, 1982, pp. 7-9; Stewart, 1982, pp. 3, 7). The Q-C "also provides an opportunity for worker creativity" (Ross and Ross, 1982, p. 7). In order to secure these feelings, the Quality Circle activities focus on:

1. self development;
2. voluntariness;
3. group activities;
4. participation by all;
5. utilization of quality control techniques;
6. activities closely related to the workshop;
7. enhancing and ever-lasting of QC activities;
8. mutual development;
9. creativity; and
As Dewar sees it, the "Quality Circle may not be able to alter the entire job; but the effect of involving one hour each week with Herzberg's motivators can dramatically influence and permeate the other thirty-nine [hours]." (1980, p. 56)

"Using Likert's (1967) four types of organizational systems, the decision-making process ... seems more consultative than fully participative." (Savage and Romano, 1983, p. 4) Fitzgerald and Murphy disagree, believing that Quality Circles are part of a System 4 style of management (1982, p. 17); however, the scanning--information processing within the organization--that does take place is more related to a typical bureaucratic network (Aguilar, 1967, pp. 77-79) than one which would fit Likert's System 4, where individuals from all levels would have the ability to input their views and influence the final decision process. Although Dewar points out that QC members do more than "turn over" a list of problems to management (1980, p. 241), "(e)very program begins with the necessity of obtaining its approval through Top Management." (Greshner, 1984, p. 95) The role of top management in the implementation of Quality Circles is to:

[1] establish corporate policy and a corporate plan;
[2] set corporate goals and objectives;
[3] have management commit to the process;
[4] allocate the necessary resources;
The QC therefore is "more of an information dissemination system" which serves more to give the "appearance of consensus-seeking" (Stewart, 1982, p. 7), if then, since top management remains separate from the various Q-C activities (Goldstein, 1985, p. 507). The twist is that Q-C responses are officially sanctioned responses from the bureaucratic framework. The stronger the top-down grasp on power exists and less concerted the efforts at maintaining the appearance of consensus-seeking, the less effective the QC (Snyder and Anderson, 1986, p. 193). As Blake and Mouton observe:

The underlying principle is that those who do the work have many ideas about how to do it better, and if they are listened to, and what if they recommend is implemented, then improved productivity will result.

... When nothing happens, the old attitudes reappear, often expressed by "See, we told them, but they don't give a damn. Why should we try to be productive when they don't care?" (1981, p. 6)

However, "(i)f the movement [Q-Cs] is "mandated" by management, it will suffer from the BOHICA syndrome (bend over, here it comes again!)." (Ross and Ross, p. 7)

Workers, in general, prefer to have their tasks defined with precision and take their cues for behavior from these (Simon, 1957b, p. 217; Lorsch and Morse, pp. 80-83). Typically, in the United States, such definitions mean that "the work force does not consider that it has a respon-
sibility to help the managers improve the company's performance." (Juran and Gryna, 1980, p. 160) The Q-C, as a result, acts as a bridge between the various subunits of the organization in order to reduce the inherent differences in outlook which the various components have (Goldstein, 1985, p. 505; Hambrick, 1981, p. 254; Hinings et al., 1974, pp. 40-41), and bind them to a central ideology (Katz and Kahn, 1966, p. 47; Perrow, 1961, p. 845), matching the needs and the goals of the individual employee to those of the organization (Dewar, 1980, p. 50), vis a vis, interdependence or, delegation of self-control (Juran, 1964, pp. 189-190). Consequently, it would seem that Quality Circles, take on Juran's beliefs that the best way to integrate the various aspects of information-gathering and decision-making is to create a mini-board of directors along the structure to keep abreast of the data and build-in the notions of quality throughout the whole of the organization's processes (Cole, 1979, p. 142; Harada, 1984, p. 56; Hutchins, 1985, p. 250; Ishikawa, 1984, p. 1; see Juran and Gryna, 1980, pp. 3-6; Juran, 1966, pp. 26-27, 131-133; 1964, p. 276).

Information is the key resource of the Q-C, as with any communication process (Simon, 1957b, p. 167). Sud Ingle writes that:

The belief behind the concept of Quality Circles is that the people who work daily a particular job know more about it than anyone else. So why not get input from these people to avoid, solve, and control problems that relate to their specific jobs!... They not only
employ their hands, but also their brains. (1985, p. 190)

As a means of fostering interdependence, information creates a positive relationship in the overall coordination of the institution's activities (Cheng, 1983, pp. 157, 159-160; Crozier and Friedberg, 1980, p. 11). Within their purview, "each Circle creates its own code of conduct as a customized venture." (Dewar, 1980, p. 65)

From an operational perspective, Q-Cs place a great degree of impetus on statistical and pareto analyses (Juran and Gryna, 1980, pp. 21, 22; Karatsu, 1984, p. 13) for the purposes of quality control auditing mechanisms (Hutchins, 1985, pp. 59-60; Ingle, 1985, p. 171).

However, in almost every case these benefits are secondary to the "people" advantages associated with circles. Indeed, most companies that are successful with the circle effort place a higher priority on the industrial relations dimension than they do on bottom-line payoff. In most cases this is a way of saying that the bottom-line will take care of itself if we can provide the proper environment to release the worker's potential. (Ross and Ross, 1982, p. 32)

The prioritizing of the "people" advantages benefits the organization in many ways, namely:

[1] "Improved and more frequent communication within and between the various organizational levels.

[2] "Greater flexibility in the organizational structure due to a more egalitarian and cooperative atmosphere.

[3] "Reduced conflict, as cohesive interactive teamwork lessens conflict and friction.

"Better utilization of an increasingly knowledgeable work force.

"More commitment to the organization among employees, and greater identification with its goals and products.

"Less turnover, absenteeism, and tardiness.

"Increased productivity and quality at all levels.

"Higher level of safety awareness among employees.

"Savings in money and time resulting from circles' solutions to problems and members' commitment to these values." (Mohr and Mohr, 1985, p. 199)

As Nonaka and Johansson observe: "One lesson from the Japanese managers is that the soft factors might well be at least as important as the hard factors." (1985, p. 181)

"All that stuff you have been dismissing for so long as the intractable, irrational, intuitive, informal organization can be managed. Clearly, it has as much or more to do with the way things work (or don't) around your companies as the formal structures and strategies do. Not only are you foolish to ignore it, but here's a way to think about it. Here are some tools for managing it. Here, really, is a way to develop a new skill." (Peters and Waterman, 1982, p. 11)

Where Does Theory Z Enter and What About the M-Form Society?

"The impetus for Quality Circles in the United States was their phenomenal success in Japanese industry" (Sikes and Donovan, 1984, vol. 2, p. 2), but the Q-C is only a part of various attempts at establishing "people participation" styles of management elsewhere (Ingle, 1985, pp. 188-189). It needs to be stressed that Quality Circles represent a part of a managerial philosophy (Robson, 1984, p. 153) The
best known of these styles of management or managerial philosophies is William Ouchi's Theory Z.

The Q-C's main task in Theory Z is to maintain quality control by insuring that the proper internal resources are put to work toward a specific task.

Until Ouchi, apparently no one had realized a relationship between industrial clans and productivity. It is Ouchi's hypothesis that clan values create order, cohesive work groups, and happy stable workers committed to their corporation. Also, in a comparison with a Type A firm, a Theory Z industrial clan should bring out more productivity per worker... (Sullivan, 1983, p. 134)

Overall, Theory Z is a thirteen step process (Ouchi, 1981, pp. 83-110) where the organization:

[1] understand what a Z-type organization is and your role;

[2] audit your company's philosophy;

[3] define the desired management philosophy and involve the company leader;

[4] implement by creating structures and incentives;

[5] develop interpersonal skills;

[6] test yourself and the system;

[7] involve the union;

[8] stabilize employment;

[9] decide on a system for slow evaluation and promotion;

[10] broaden career path development;

[11] prepare for implementation at the first-level supervisory position;

[12] seek out areas to implement participation; and

Ouchi prefers to see Theory Z more as a philosophy rather than as a management model. It is a philosophy which stresses the positive side of interpersonal commutations.

As Stogdill writes,

Individual differences in performance provide the basis for the differentiation of structure in groups, both animal and human. Individual performance when analyzed in detail appears to be infinitely varied. However, the members of a group tend to perceive each individual member as exhibiting a homogeneous pattern of behaviors which makes him particularly fitted to perform a specific task in the group. . .

Individual differences in skills make collaborative effort advantageous to the individual and the group. (1959, p. 44)

Success determines influence (French and Snyder, 1959, p. 119). And as far as Ouchi is concerned, bringing all the participants into the game, sharing in the benefits, and feeling as a part of the team is what will bring success, or an even greater degree of it (see Mohr and Mohr, 1983, p. 5).

Productivity, trust, and subtlety (in relationships; ie. political in nature) is what participation is all about. Or, in Ouchi's own words:

Productivity, trust, and subtlety are not isolated elements. Not only do trust and subtlety yield greater productivity through more effective communication, trust and subtlety are inextricably linked to each other. While a department capable of subtlety has the great advantage of making use of important but inexplicit information, it has for that reason the great disadvantage of not being subject to outside review or audit. A decision made for subtle reasons is a decision that will not stand up to the crude scrutiny
of an uninformed observer... (A) lack of trust between parties will end up in requiring that subtlety be thrown overboard in the face of need for explicitly defensible decisions and actions. (1981, p. 7)

Crozier and Friedberg state that "traditional authority disintegrates not so much because of value changes as because of the changes structure of the conventional game." (1980; p. 11) Theory Z allows for a flexible game-plan.

Katz and Kahn's (1966, p. 47) five characteristics of binding an organization together -- [1] a maintenance structure as well as production and productive-supportive structures; [2] elaborate formal role patterns in the division of labor; [3] clear structures of authority; [4] regulatory mechanisms and adaptive structures; and [5] the explicit formulation of ideology through normative elements -- are interwoven into the framework, attempting to integrate the various parts which must be into a more holistic identity from the participants (Ouchi, 1981, p. 109; Ouchi, 1984, p. 9). Cameron's effectiveness paradox--where loose coupling, high specialization of roles, continuity of leadership, deviation amplifying process, expanded search in decision making, and disengagement and disidentification with past strategies (1986, pp. 545-546)--is apparent. Theory Z and Quality Circles thus demonstrate that "(t)he ability to work as a team is particularly important in two instances: decision making and resource allocation" (ibid, p. 7) in order to avoid the tendency to
utilize the minimaxing principle where decisions are made in terms of risk aversion (Samuelson, 1976, p. 186).

The M-Form Society, is Ouchi's way to translate the business concepts of interdependence (as seen above) toward the whole of the American social structure.

An M-Form organization is a multidivisional organization.

What is most important about the M-Form organization is that its operating units are partially independent. That is, each division makes a product or supplies a service that is distinctive and different from that of each other unit, but all share some common endowments such as technology, skill, or other important features. (ibid, p. 23)

His argument is simple enough; make changes in the society which reflect these lessons from business and increased performance and productivity will follow (ibid, p. 226). Arguably, similar points of views are to be found in earlier corporatist theory writing. To quote John Maynard Keynes,

I believe that in many cases the ideal size of the unit of control of an organization lies somewhere in between the individual and the modern State. I suggest, therefore, that progress lies in the growth and recognition of semi-autonomous bodies within the State -- bodies whose criterion of action within their own field is solely the public good as they understand it,... (1926, pp. 41-42)

How is the Quality Circle affected by these two theoretical premises espoused by Ouchi? First, the Q-C, when it exists, is a factor in the communication process of an organization, especially when it is designed to be part of the power equation of said institution (Lee and Lawrence,
1985, p. 135). Secondly, as a call for group interaction and solidarity, the Quality Circle is internally affected by how the organization views itself. Third, Q-C's are viewed by Ouchi as a means for institutional flexibility in ascertaining responses to perceived problems, and the questions of revenue allocation as well as resource dependency (see Pfeffer and Salancik, 1978, p. 259) will affect the specific objectives for which the Quality Circle is created. Fourth, the Q-C is merely a management response, a tool in which to allay power structures (Hambrick, 1981, pp. 257-258; Hickson et al., 1971, p. 218; Lloyd and Regh, 1983, p. 14). As Schein observes, the Q-C in practice does not go beyond activizational tasks and value orientation (1986, p. 146).

The Quality Circle can be a formalization of the previously informal networks of the institution in that it announces and defines what the aggregate of personal contacts and interactions are (Barnard, 1956, p. 115) in terms of the "official" rather than "performance" goals or in bringing together the specific attributes and perspectives (Hambrick, 1981, p. 257) under what Pascale and Athos call the superordinate goals of the organization (1981, p. 326).

Q-Cs are not the bureaucracy of the institution or its substantive policy-making arm (cf. Thompson, 1982, p. 4). It merely allows for intraorganizational response to
solutions as a part of the official structure, breaking through some of the previous structural barriers which existed between governance, management, and production for the purpose of streamlining production. Thus, the Q-C is realistically a heuristic devise which allows for the formation of special committees to develop, establish, and foster specific interests within a section, an entire organization, or as a part of the general external environment -- an example of the latter being an interlocking directorate (Pfeffer and Salancik, 1978, p. 165) -- with a specific task always in mind.

How to Set Up a Quality Circle

"The goal of an installation program is to make the quality circle process a permanent, self-sustaining part of the management process of your organization -- to institutionalize it." (Thompson, 1982, p. 31) The idea is to apply optimism and commitment in order to provide the creative impetus to succeed (Hastings, Bixby, and Chaudhry-Lawton, 1986, p. 55). In this fashion critics of the system are created for the purpose of the "illumination of something's qualities so that an appraisal of its value can be made." (Eisner, 1979, p. 190) However, this does not happen overnight.

Most Quality Circle programs begin with concerned managers who are looking to improve (Patchin, 1983, p. 31)
or just "someone in the organization hears about quality circles and is intrigued by them." (Fitzgerald and Murphy, 1982, p. 45) These people do some research on the topic and then mentally begin to see whether or not the Q-C is a plausible approach to their institution's way of doing things (Mohr and Mohr, 1983, pp. 41-42; see Weick, 1979, pp. 175-176). Lurking in the background, the biggest problem facing those who want to change the system is the old nemesis of institutional inertia (Hutchins, 1984, p. 61).

The first concept in setting up a Q-C is to realize that research and the experience of those involved in the process conclude that it takes at least between two and three years to convert from a traditional, classic-authoritarian style of management to the participative style of the Q-Cs (Ross and Ross, 1982, p. 160). Extremely careful preparations are essential (Hutchins, 1984, p. 61). The second sine qua non is to understand and realize that it is essential that the managerial elements become sold on the concept and the idea of Q-Cs. "Skilled, responsible management and superior quality and productivity are inseparable." (Barra, 1983, p. 34)

We create opportunities for employee opinion to be heard by top management when introducing QC [quality control]. For a want of a better term, we call this system "top hearing". In its function, it is not different from the company wide inspection or presidential audit, but it is an opportunity to be heard by the top management during the initial stages of QC introduction and it serves our purpose far better. (Nemoto, 1987, p. 18)
Sustained, visible support of management will give Q-Cs a good chance of succeeding; otherwise, insurmountable difficulties may arise (Mohr and Mohr, 1983, p. 42). They key point for management is, as Robert Cole observes, to create economic growth through the use of the heretofore unutilized information and techniques which have developed and accumulated throughout the history of the firm (1979, p. 122).

Once management has given a positive nod to the Q-C concept, Patchin argues that one of the initial steps in the process is to look for a consultant (1983, p. 32). Thompson is not so sure, indicating that if one does his homework, one will do most of the tasks done by a consultant by the time the initiating phases are over (1982, p. 46). However, they are nice to have around. In the end, as Mohr and Mohr point out: "Obviously, hiring a consultant is the quickest way to start, but it requires the largest initial monetary investment." (1983, p. 61)

A consultant acts as a resource (Ross and Ross, 1982, pp. 125-126). They can help in changing the organization from a 'do your own thing culture' to a 'teamworking culture' (Hastings, Bixby, and Chaudhry-Lawton, 1986, pp. 130-131). "Moreover, a consultant can help you save time and avoid hassles in preparing training materials." (Thompson, 1982, p. 46) According to Hastings, Bixby, and Chaudhry-Lawton, consultants have two key roles: [1] to
review the progress of the entire project, and [2] to help in the training, development or consultancy within the organizational framework (1986, p. 178). A 1980 survey of 33 organizations with Q-Cs showed that 70 percent had received assistance from consultants and that more than half had contracted for total implementation packages consisting of training materials and a variety of on-site services such as orientation seminars, training for facilitators, leaders and middle management, assessments, and preimplementation preparation (Gibson, 1982, pp. 9-10).

Regardless of whether or not an organization chooses to select a consultant, the usual steps to follow involve the following:

[1] Select a two-man team from within the institution; one in quality control and one who specializes in industrial relations.

[2] Research and learn as much as you can.

[3] Attend a one-day seminar on Q-Cs.


[8] Develop plan and goals.

[9] Present your plan to management and union people.


Form circles.

Review monthly progress. (Ingle, 1982, pp. 71-72)

1. Select a two-man team.

It is recommended that an implementation team be set up (Fitzgerald and Murphy, 1982, p. 46). These are institutional people who make themselves experts, and become the organization's recognized experts (Thompson, 1982, pp. 84-85) and, usually, the facilitators later on in the process (Donovan, 1984, p. 49). These individuals can either chose to go a consultant or to do their own homework (Fitzgerald and Murphy, 1982, p. 46).

The two-man team has proven to be successful in the past (Ingle, 1982, p. 72). The combination of quality control and industrial relations is a logical one because it allows for both sides of the concept to concentrate on how resolve problems arising from mixing the two. Usually, these two individuals come from the ranks of middle management (Mohr and Mohr, 1983, p. 42). The viewpoint is simple enough: "Employees pulling in the same direction are at the heart of an effective organization." (Tjosvold, 1986, p. 53) Thus these two individuals are well suited to survey and evaluate both operating and management systems in order to identify areas, techniques, and plans for improvement (Ross and Ross, 1982, p. 117). In this way, the dormant resources of each side can be brought together in an interdependent manner (Mohr and Mohr, 1983, p. 177).
The two-man team acts as the framers of the Q-C plan. Not unlike the framers of the U.S. Constitution, these individuals need to seek out potential supporters within the organization who will help with the spearheading effort of the team (Fitzgerald and Murphy, 1982, p. 46). The outcomes for the team are to: "(1) strengthen management's understanding of the Quality Circle philosophy, (2) find ways to increase management's ownership of the program, (3) relate Circle activities to perceived organizational goals and needs, and (4) help management make its support tangible and visible." (Donovan, 1984, p. 55) The team looks at:

[a] What is our management style?

[b] How does our productivity today compare with a year ago?

[c] How does our quality compare?

[d] How good are our labor relations?

[e] How is morale?

[f] What are our absenteeism rates?

[g] What is our position in the market? (Alexander Hamilton Institute, 1981, p. 9)

The team is choosing to create the potential for:

* A vehicle for employee involvement in some forms of traditionally managerial activities.

* An occasion for employees to become more involved and committed to their work.

* An opportunity for employees to learn more about their work and the work of the organization as a whole.
2. Research and learn as much as you can.

As the experts, i.e. facilitators, it is the duty of the spearheading team to know what they are talking about not just to top management but to middle management, first line supervisors, and the employees. As Hutchins above warning indicates, it is very important to have a very solid grasp of what the Quality Circle and its philosophy is because without it the chances of failure increase in a dramatic fashion.

Many of these questions have to do with the acquisition and analysis of knowledge. The QC concept must be clarified, and the team members must develop a working knowledge of the installation process. Every effort must be made to ensure that a common understanding is achieved. (Fitzgerald and Murphy, 1982, p. 48)

There are many writings, conferences, and other materials available out there in the real world about what the Q-C is all about. There are associations like the International Association of Quality Circles (IAQC) and the American Society for Quality Circles (ASQC) which supply detailed information on how to go about creating a Q-C. If
the facilitators have problem finding these materials, then use a consultant.

3. Attend a Seminar.

"Sometimes it is helpful to attend a seminar on Quality Circles offered by outside experts." (Ingle, 1982, p. 73) Consultants can offer these as part of their training, but the adage of *caveat emptore* is very much in force here (Barra, 1983, p. 52; Mohr and Mohr, 1983, pp. 61-62; Patchin, 1983, pp. 33-35). Mohr and Mohr rate the IAQC facilitator training program highly (1983, p. 62).

"Attending this type of seminar will help to reinforce the material that the team has already studied. "However, many companies might not need this step if the management has committed itself to this type of program." (Ingle, 1982, p. 73)

4. See Q-Cs in Action.

Go look at real *in vivo* example of a Q-C at work. Get as close to a first-hand look at a Quality Circle in action as it is possible. This involves going to another institution which has the Q-Cs in place. Many places that have successful Quality Circles are proud of them and are more than willing to entertain visitors. By visiting active Q-C sites, the planners can pick up ideas for the planning, organizing, and/or the coordination of their own Circles as well as setting up opportunities for doubting managers to see Circles in action (Mohr and Mohr, 1983, p. 42).
5. Decide to Start.

Better known as getting the commitment from the top, the team and their supporters make a formal presentation to the top managers of the firm. "Even though quality-circle projects have achieved impressive levels of success when initiated as a grass-roots movements, that success can be multiplied when those at the top are actively involved in the organization's QC system." (Fitzgerald and Murphy, 1982, p. 59) The presentation to top management should include, in Ingle's opinion:

[a] Advantages and disadvantages of Q-Cs.
[b] Problems in running a Circle.
[c] Planning for Quality Circles.
[d] Training requirements.
[e] Funding requirements for the program.

Prior to the meeting, the team members should have been talking to people who have influence in the organization to sound them out on the possibilities and possible overall level of interest for Quality Circles (Fitzgerald and Murphy, 1982, p. 63). Sometimes, however, a negative response from top management may be a positive response to the Quality Circles (Mohr and Mohr, 1983, p. 42). The issue is timing. Management may be keen on the idea, but parts of the equation are not in place. A good presentation by the team will point these matters out and make an argument for a
plausible scenario as to when and how to go about the change to Q-Cs. One must remember that the team members are not usually privy to the whole accumulation of institutional information, that there are other factors which the chief executive officer and other high officials must weigh in making any decision (Goldstein, 1985, p. 507; see Pfeffer and Salancik, 1978, p. 49; Sherif, 1966, p. 15; Weick, 1979, p. 16).

As with any other hoped for plan-of-action, the most visible support that top management can give is in terms of the budget allocations directed toward the effort. The leaders of the firm must be willing to entrust their employees not only with a task but with trusting to do it (Joiner, 1985, p. 58). However, as Hutchins indicates, their visibility in terms of continued appearance at meetings which occur at various levels, in continuously asking questions, and asking to sit in at Circle presentations is just as important (1985, p. 130). Ross and Ross concur, further stating that once top management agrees to implement Q-Cs, it should be supportive by:

* Allowing Circles to meet during normal working hours.
* Placing a high priority on circle meetings.
* Allowing cross-attendance between circles when working on joint projects.
* Providing adequate meeting areas, equipment and supplies.
Including Circle activities as part of monthly reports and other activity reports.

Authorizing selective attendance at outside conferences.

Supporting Circle activities in speeches, presentations, and public relations media.

Including Circle activities as a part of organizational goals. (1982, p. 135)

Ross and Ross further add that top management should be participative by also:

- Following up on Circle projects with time and money.
- Following up with the leaders.
- Respecting the autonomy of the Circles.
- Encouraging management presentations as an essential part of activities.
- Implementing approved recommendations without delay.
- Responding quickly to Circle recommendations. If it is impossible to comply, provide a detailed explanation as to the reasons why not. (ibid.)

6. Select a Facilitator.

Dewar asserts that "the facilitator should be selected as soon as a definite decision has been made to implement Quality Circles." (1980, p. 141) However, he believes that this should be done by the steering committee (ibid.), which is the next phase of this sequence. Ingle's viewpoint here is that this is the key position in a Circle program (1982, p. 75), the hub of the Circle (Hutchins, 1985, p. 182). From a purely structural point of view, Mohr and Mohr argue
that the steering committee is the first entity to be established (1983, p. 44). Fitzgerald and Murphy's approach (1982, p. 90) agrees with Ingle's view (1982, p. 75) which simply asserts that this position is the normal evolutionary outcome for one of the two individuals who initiated the process and became the in-house experts on what the organization should do to improve itself. The key is, as Ingle points out, that there is an Executive Committee in place, i.e., the actual top management itself, which directs the effort (1985, p. 194). Unlike the other aspects of the Q-C, this committee does not have the potential for any voluntary members, it allows the formation of the other committees to commence.

At this point, Barra's comments are the most pertinent.

Once management decides to start the quality circle process, a search for a facilitator begins. This is usually accomplished best by top management publicizing their intention to start the circles and stating the need for someone to assume the facilitator's role. Several people often volunteer for the job when done this way.

However, extreme care must be exercised in the selection of a competent person to fill the role of facilitator. The person must not be someone who is just "available". The person should be people-oriented and challenge-oriented. The volunteer should have an analytical mind, be flexible, and be willing to take chances. (1983, p. 48)

The role of the position entails working with most (if not all) the Q-Cs established, to solve operational problems, to help in preparation for management presentations, to obtain supplies and resources, to train Circle leaders, and to
serve as a general information resource (Fitzgerald and Murphy, 1982, p. 90). Depending on the size of the institution the facilitator will be on his own or will be seen and titled as a coordinator over other individuals who will assist in the facilitation process (Hutchins, 1985, p. 182).

If the firm is small enough, this individual could make the role of the steering committee optional (Thompson, 1979, p. 53), or, as the Alexander Hamilton Institute people write, the steering committee itself can act as the coordinator (1981, p. 12).

Nevertheless, if the Quality Circle program "includes a coordinator from the outset, he or she will be involved in the planning process along with the steering committee" (Mohr and Mohr, 1983, p. 56) and the Executive Committee. Thus, the "appointment of a facilitator will usually be one of the first positive decisions that a company will make, which will indicate its level of commitment to the programme." (Hutchins, 1985, p. 182)

Questions arise in the literature as to whether or not this individual should be in a full-time or part-time capacity. The decision depends on the organization and its plans (Mohr and Mohr, 1983, p. 57). The coordinator's position in administrative and investigative (Alexander Hamilton Institute, 1981, p. 13), and that position's task must be carefully understood in an institutional perspective. The importance of the role of facilitator/coordinator
is to maintain objectivity (Alexander Hamilton Institute, 1981, p. 32), his associations with the organization cannot question that individual's credibility. Put succinctly: "By definition a 'part-time' facilitator is a part-time something else." (Hutchins, 1985, p. 183) Dewar spells it out:

As a general rule, the facilitator's job should be full time; although there are exceptions to this recommendation. Some organizations are too small to justify having a full-time facilitator. The facilitator who is part-time should be free, initially to operate in a full time capacity. (1980, p. 153)

Factors to consider are the number of levels of command, the variety of different skills, whether or not it is a single or multiple location, the degree of participative style within the organization, labor relations, if there is a supportive style of management, and the layout of what a normal day looks like or how the shifts are laid out (Hutchins, 1985, p. 183). Hutchins goes on further, stating that the time requirements need to be carefully estimated on a weekly basis; that if the institution is going to go with the part-time approach, it is better to have two or three part-time facilitators from throughout the firm to better sell the notion that the Q-C is a company-wide endeavor; and that if this last point is the case, that one of the part-time facilitators be given a higher status than the others, effectively making that individual a coordinator (ibid, p. 184).
7. Form a Steering Committee.

"Experience has shown that the appointment of a facilitator, together with the establishment of the steering committee are the two most influential factors which will determine future success." (Hutchins, 1985, p. 182)

Although the organization's size may be a factor (Patchin, 1983, p. 37), the mission of the steering committee is essential (Dewar, 1980, pp. 125-126) in terms of giving scope and direction to the incepting Q-Cs. Effectively, the literature often describes the steering committee as a Quality Circle which oversees the other Q-C activities (see Gibson, 1982, p. 6). More importantly, the steering committee serves to reinforce rather than interfere with the normal chain of command (Gibney, 1982, p. 160, op. cit.). The membership must therefore reflect the unique characteristics of the organization and the Q-C program it serves (Fitzgerald and Murphy, 1981, p. 82).

Ross and Ross indicate that: "In addition to high level management, the steering committee might include one or more representatives from middle management and the production area (e.g., production supervisors or foremen)." (1982, p. 136) Members may not delegate others to attend the meetings for them (Dewar, 1980, p. 232). Middle managers will be the hardest people to convince. Therefore, the committee can be an exception to the voluntary rule; the chief executive officer should assign people and allow these people to
select lower level individuals to serve with them in the committee (Alexander Hamilton Institute, 1981, p. 12). Middle managers can make or break the process, and thus need to be convinced of the process. More of this later.

8. Develop Plans and Goals.

Once the steering committee is formed and in place, it should begin, along with the facilitator/coordinator, by concentrating on formulating the plans and goals for Q-C activities (Ingle, 1982, p. 75; Mohr and Mohr, 1983, p. 56). It is necessary for the steering committee to understand and review the initial plans and ideas made by the two man team, and to develop alternative courses of action in case of difficulties arising due to complications in the timing and sequence of putting the Quality Circle teams together (Ingle, 1982, p. 75). The committee needs to create a strategic vision and communicate it in a way that is relevant to the individual's job and exciting so individual commitment and pursuit of excellence become entwined with organizational outcomes (Joiner, 1985, p. 59; Peters and Waterman, 1982, p. 9). Within this context, the planning needs to avert the risks which can be associated with setting up a program too quickly:

[1] Great expectations about "going participative".
[3] Failure to own the program. Mobilization requires a shared sense of immediacy and understanding the consequences in a way that people believe that they can contribute.

[4] The call throughout the organization is seen as a call to participate in decision making and not in problem solving. (from Shea, 1986, p. 41)

A participative-style organization is not a free-form structure, it is "rigidly structured with a disciplined management system." (Joiner, 1985, p. 61) The plans and goals developed need to reflect this at all times, especially to formalize and legitimize the ensuing Quality Circle activities (Dewar, 1980, p. 230).

9. Present the Plan to Management and the Union.

"Once the detailed plan is developed, it is essential that the plan be discussed with the middle management and the union leaders." (Ingle, 1982, p. 76) Both of these elements need to work together in order to provide the opportunity to have decision making and control over their work which is implicit in Quality Circles (Gibson, 1982, p. 15, op. cit.). Without their support, as Ross and Ross indicate, the old expression of the "weakest link" becomes appropriate "in that it can stop the flow of support and interaction necessary for the endeavor's success." (1982, p. 39)

A. Middle management.

Most behavioral scientists agree that the greatest resistance to change can be found in the middle levels of an organization. . . The implementation team must understand that a single manager who feels threatened
can sabotage a serious attempt to install QCs, even though the top executives are supportive of implementation. (Fitzgerald and Murphy, 1982, p. 67)

As noted above, when discussing the composition of the steering committee, middle managers and first line supervisors usually are the most difficult to convince that a Quality Circle is worthwhile. Middle and line managers (a.k.a. supervisors or foremen) typically put a low priority on spending valuable time to even hear about a new "management technique" (Fitzgerald and Murphy, 1982, p. 68). Much of this feeling has to do with the change in managerial concepts and interpersonal relationships which they must personally undergo (dear, 1980, p. 213). From the Japanese point of view:

In the West, it may be that managers do not understand, or do not want to understand, worker's aspirations because of the psychological divisions between labor and management. This problem is compounded where workers literally do not speak the same language as management. Managers in such a situation are truly faced with the need to develop intercultural skills as well as skills to facilitate communication with their compatriots. (Imai, 1986, p. 173)

"There remains in the United States a considerable residue of the Frederick Taylor system of shop management" (Callahan, 1982, p. 78), which, as already noted, the Japanese have found wanting. A concerted program is therefore necessary so that these individuals will fully understand the philosophy behind Quality Circles, what their responsibilities are concerning the program, and the benefits derived from the program (ibid, p. 96). Through-
out, the middle managers should be reminded of "the personal benefits that will accrue to those willing to enlist in the effort (Fitzgerald and Murphy, 1982, p. 71).

More to the point, however, middle managers must always be aware of the ultimate object of Q-Cs: a "self-control" working environment (Hutchins, 1985, p. 136). As institutional middle-men, middle managers are responsible for carrying out the policies set up by top management. Their specific leadership style is vital because it becomes the model for their subordinates (Barra, 1983, p. 111).

If reluctant, middle managers can damage the program in two ways: (1) by rejecting the Q-C's recommendations without logical reason, or (2) by accepting the recommendations and then failing to clear away the obstacles that will prevent them from becoming a reality (Alexander Hamilton Institute, 1981, pp. 97-98).

Insofar as the foremen or supervisors are concerned, these individuals are the immediate link to the success of the Quality Circles since, as Cole indicates, the Q-Cs are designed to link the training of the foreman with the rank and file (1979, p. 138). From an evolutionary perspective, foremen have been a part of the corporation's efforts at quality control (Feigenbaum, 1983, p. 15). Their traditional position within the organization however, is that of an enforcer of management's dicta (Thompson, 1982, p. 183).
"Acceptance at this level is largely a function of how well they are "sold" on the value of circles to themselves, the workers, and the company, as well as the priorities attached to circles" by their superiors and other members of line management (Ross and Ross, 1982, pp. 161-162). Otherwise, a supervisor will feel threatened if he is excluded from participating in the process which, in turn, can threaten the official lines of communications that exist at the firm because they see Q-Cs as breakdown of the normal chain-of-command (Thompson, 1982, p. 79). For best results, the individual in this position should volunteer for leadership training and possibly acquire some additional skills in group dynamics, creating effective meetings, effective presentations, and listening skills among others (Barra, 1983, p. 111; Hutchins, 1985, p. 151).

B. Unions.

Careful thought has to be given to the union's position. If a union perceives that management is using circles as another attempt to squeeze more productivity from members without sharing rewards, or if it fears that the system will create a wedge between the workers and the union, it will be difficult to get the program off the ground. (Ross and Ross, 1982, p. 40)

"In unionized settings the key to receiving the maximum voluntary participation of the work force is through the union." (Fitzgerald and Murphy, 1982, p. 78) Dewar writes that unions are rarely an obstacle unless they believe that the Quality Circles are taking over the provinces of wages,
In a well-thought-out implementation, supporters of quality circles will avoid potential problems with union by recognizing that its members and leaders are as much a part of the QC process as they are of the organizational life in the company. By including them in the initial investigation, planning, and implementation, and by ensuring that they are well represented in any group that is empowered to investigate and make decisions about the QC program, adherents can be reasonably sure of gaining union support. (1985, p. 43)

10. Develop Training Material. “This is another big hurdle in starting and implementing a Quality Circle program.” (Ingle, 1982, p. 76) In many cases training has been non-existent (Hutchins, 1985, p. 120). One of the reasons is that there is little information in English, so the best thing to do is establish one’s own material (Ingle, 1982, p. 76; for an example, see Nemoto, 1987, p. 221). For example, if there is a training department, it should be involved in the development of these materials (Alexander Hamilton Institute, 1961, p. 21; Thompson, 1967, p. 107). Or, go to a consultant or, to the IAQC or ASQC.
As to what is available:

Off-the-shelf training packages are available from various sources and often feature a number of media, including overhead or 35 mm transparencies, cassette tapes, leader guides, and member workbooks and texts. They are the most reasonable investment of the four alternatives, but they too have some drawbacks. The primary shortcoming of off-the-shelf training packages is their adaptability to the group being trained. Because no two groups are alike, some common denominators of subject matter, training tapes, examples, and so on, must be selected by those who package the material. Often, these may not be suitable for a particular group, or for the philosophy of the organization as a whole. It may be possible to "customize" these packages, however, to suit the needs of the organization. (Mohr and Mohr, 1983, p. 62)

Regarding the techniques used in training:

Traditional Quality Circle training has combined a series of slide/tape shows displaying the problem solving process with lectures on communications, leadership and small group experiences. In some cases a form of role playing has also been used to give the participants a chance to experience the problem solving process. (Kacher and Soule, 1984, p.128)

11. Present the Concept to the Group.

Rather than jumping wholeheartedly into the Quality Circles, the literature stresses the importance of setting up pilot projects as experiments. By the time that the training materials are being put together, the steering committee and the coordinator/facilitator should have decided on the type of training for the facilitators and leaders (who in their turn will train the members) (ibid, p. 61). The next step is to select the area of the company which will be targeted for implementation. The area can be selected in a number of ways.
Some companies like to start the program where more than the usual number of quality problems exist. Some start where scrap and rework is excessive, while others start where there are a lot of communications problems. There are no hard and fast rules. In general, one should pick areas where reasonably good cooperation can be expected, and where people are receptive to new ideas. (Ingle, 1982, p. 76)

The most important criterion in selecting a locale for the pilot circle is the style of leadership that exists in the immediate work place (Fitzgerald and Murphy, 1982, p. 85).

A pilot plan needs to be extremely well thought out in order to get support from more than just management. The facilitator, along with help from the staff needs to consider and plan for:

1. the right type of involvement;
2. the right type of publicity;
3. the right number of circles;
4. the right place to start;
5. the right time to start;
6. the right type of expectations;
7. the right type of measurement; and
8. the right preparation for the project. (Barra, 1983, pp. 67-71)

The most important aspect of establishing pilot programs is to keep things small (Alexander Hamilton Institute, 1981, p. 43). The Alexander Hamilton Institute insists that the pilot program should consist of only one circle (ibid, p. 42) while Mohr and Mohr state that there should be "at least three quality circles, and ideally
should not exceed eight." (1983, p. 60) Regardless, the existence of a pilot program allows the company to (a) "test the water" in finding out those areas and personnel that have a higher potential for success, and (b) to avoid the possibility of embarrassment and expense of failure throughout the entire organization (Ross and Ross, 1982, p. 167) which could lead to negative results at a later date. Specifically, (1) do not start the pilot project if management's attention or (2) do not start if a dramatic change in the organization is about to take place or (3) when there are labor-management problems (Barra, 1983, p. 69).

Once the area is selected, people should be informed and requested to attend the first meeting, which should be held on company time. Experience shows that most well-planned meetings are successful, and more than 90% cooperation or participation is not unusual. In the meeting, the voluntary aspect of the program should be emphasized, and it should be stressed that people are free to join or quit the program at any time. (Ingle, 1982, pp. 76-77)


Training is one vital ingredient that distinguishes a sustainable quality circle process from a "quick-fix" implementation that soon disappears. (Gibson, 1981, p. 9)

According to Thompson, training is so important to the process that it is a full-time task (1983, p. 107). Training is the key. Mohr and Mohr point out that Dr. Juran has called training the aspect of Quality Circles which
makes it unique among all the motivational programs (1983, p. 235).

As Gibson's quote of Pascarella (June, 1982) indicates: "Lack of proper training for managers, supervisors, facilitators, leaders, and circle members is one of the "main causes of QC failure"." (1981, p. 9) Therefore, training activities include from the bottom-up:

[1] Quality Circle member's training (eight hours).
[2] Leader's training (eight hours plus additional training as required).
[3] Facilitator's training (three and one-half days).

The reasons, as Mohr and Mohr see them are that:

Leaders and facilitators as well as members must be trained in order to be effective in their roles. Training for leaders and facilitators enables them to function effectively in a nondirective and more collaborative style. Middle and upper management should receive training to enable them to understand the QC process and the importance of their function as supportive agents. Also, training results in the managers' becoming conversant with the unique QC language, for example, "fishbone diagram" and "cause and effect". Sharing a language with members enables them to establish a rapport. (1983, p. 235)

Training has to go beyond the statistical and technical know how that goes into quality control. [see Table 3]

Focus should center around the technical complexities involved in establishing the framework and the human, organizational, and timing complexities involved in getting
Table 3

Training Materials for Quality Circles

Key References:

1. Books available from IAQC (contact IAQC)
   address: International Association of Quality Circles
   P.O. Box 30635
   Midwest City, Oklahoma 73140

2. Books from ASQC (contact ASQC)
   address: American Society for Quality Control
   161 West Wisconsin Avenue
   Milwaukee, Wisconsin 53203

3. Books from JUSE (contact JUSE)
   address: Union of Japanese Scientists and Engineers (JUSE)
   5-10-11 Sendagaya Shibuyaku
   Tokyo 151 Japan

4. Articles from Journals and Periodicals

5. Review Books on Human Relations

6. Review Books on Communication

7. Review Books on Statistics

(from: Ingle, 1982, p. 161)
the program off and running (Feigenbaum, 1983, p. 217). A good training program provides the participants with clear descriptions of the roles they must play in the process (Thompson, 1982, p. 101). Training is a never-ending process: people need to be updated in modern techniques, education helps to create new ideas and solutions (Ingle, 1982, p. 160).

Once training plans are formulated and carried out, they should not be allowed to end with mere mastery of knowledge and techniques; but, rather, be at the bottom, diffused throughout the daily activities by means of an approach to the major problems within the organization and centered on the trainees. (Ishihara, 1984, p. 43)

ASQC states that the training steps begins by familiarizing all of management and union officials with the Quality Circle process while actual Q-C training starts its first phase with the training of the Circle leaders and facilitators (1982, pp. 485-486). The second phase is the training of circle members by circle leaders and facilitators (Kim and Lunde, 1982, p. 474).

It is essential for an organization to establish training departments which are continuously involved in the training process (Thompson, 1982, p. 107). It is just as important to have these training departments also coordinate their training achievements with the local college or vocational school campus, "so that ongoing training of employees can be carried out smoothly at all times." (Ingle, 1985, p. 227)
Management training is mainly in terms of an introduction to the Quality Circle process (Callahan, 1982, p. 94) for both top and middle management [see tables 4 and 5]. Most of their training is similar to that of team leaders (since at the outset they may double as team leaders), leading the managers to "make the step up from the subset of "management" to the broader concept of "leadership"." (Townsend and Gebhardt, 1986, p. 177) [see Table 4] The training also serves as a basis for establishing the cooperation which is the most important element of Quality Circles (Harada, 1984, p. 59). All members involved in the process need to recognize the importance of teamwork (Ingle and Ingle, 1983, p. 105). At Honeywell, for example, the management training modules focus on (1) reinforcing team leader skills, (2) diagnosing team problems, and (3) Improving team leader performance (Kacher and Soule, 1983, p. 128). [see Table 5]

Often, in Q-C literature, the positions of coordinator and facilitator have no clear distinctions (Mohr and Mohr, 1983, p. 63). However, matters are simplified by applying the term coordinator to the individual responsible for the whole of the Quality Circle program, and using the term facilitator for those people whose responsibility it is to help run the specific Circles. [Please refer to section 6. Selection of a Facilitator earlier in this chapter.]
Table 4
Quality Circle Training for Top Management

Duration: Four hours plus as required

Topics:

1. Introduction
2. History
3. Brief review of "If Japan can, why can't we?"
4. Total Quality Control Office
5. Quality Circle Operation
6. Functions of members, leaders, and facilitators
7. Statistical techniques used in Quality Circles
8. Project presentations
9. Proposed Implementation Plan along with objectives
10. Review and discussion

(from: Ingle, 1982, p. 159)
Table 5
Quality Circles Training for Middle Management

<table>
<thead>
<tr>
<th>Duration:</th>
<th>Eight hours for four weeks or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics:</td>
<td></td>
</tr>
<tr>
<td>1. Introduction</td>
<td></td>
</tr>
<tr>
<td>2. Why Quality Circles? Along with objectives of the Program</td>
<td></td>
</tr>
<tr>
<td>3. History</td>
<td></td>
</tr>
<tr>
<td>4. Total Quality Control</td>
<td></td>
</tr>
<tr>
<td>5. Operation of Quality Circles</td>
<td></td>
</tr>
<tr>
<td>6. Functions of members, leaders, coordinators, and Steering Committee</td>
<td></td>
</tr>
<tr>
<td>7. Successful case studies</td>
<td></td>
</tr>
<tr>
<td>8. Statistical techniques (details provided)</td>
<td></td>
</tr>
<tr>
<td>9. Group dynamics, communication, participation</td>
<td></td>
</tr>
<tr>
<td>10. Review and discussion</td>
<td></td>
</tr>
</tbody>
</table>

(from: Ingle, 1982, p. 160)
Usually, a facilitator runs between one and four Circles while what Mohr and Mohr would term a full-time facilitator [typically the role of coordinator] would oversee up to fifteen Circles (ibid.)

"The facilitator, being the key to the program, deserves and receives the most complete training in the curriculum." (Callahan, 1982, p. 95) In terms of the organization's structure, the facilitator's relationship to a Circle is complementary (Ross and Ross, 1982, p. 140). The position entails a combination of the roles of coach, coordinator, enthusiast, communicator, innovator, promoter, teacher, statistician, and catalyst (Dewar, 1980, pp. 141-142).

Facilitators are more of 'process consultants' than 'experts' (Ross and Ross, 1982, p. 140). Therefore, facilitators need to develop consulting skills (Fitzgerald and Murphy, 1982, p. 105). They are there to help, "to make things easier" (Patchin, 1983, p. 52). This means that the position also requires to let the Circles fend for themselves, to let them "breathe" on their own once they have proven themselves. Like the coordinator or chief facilitator, these individuals help establish the major groundwork for the implementation, operation, evaluation, and eventual success of Quality Circles [see Table 6].
Table 6
The Role of the Facilitator

Program Administration

- Plan, promote, publicize program
- Management interface responsibility
- Central record keeping
- Implementation follow-up

Training

- Circle leaders, part-time facilitators
- Circle members
- Middle management

Coordination

- Circle record keeping
- Data gathering
- Coordinate outside participation

(source: Patchin, 1983, p. 53)
Throughout the literature, it is indicated that it is by their behavior that the degree of success or failure for Quality Circles will be determined.

"A facilitator should have a good educational background, preferably a college degree." (Ingle, 1982, p. 49) Dewar points out that in a survey of Q-C facilitators, people with degrees in electrical engineering, mechanical engineering, psychology, behavioral science, business, mathematics, and economics are to be found as facilitators in a Quality Circle (1980, p. 143). The enhanced educational background serves the purpose of helping set up the training programs which will help the Q-C members "plan and organize work properly and to function effectively." (Ingle, 1982, p. 49)

Who should be a facilitator? According to the Alexander Hamilton Institute, the facilitator, like the coordinator, must be people-oriented (1981, p. 16). A person in this position should be achievement-oriented (Dewar, 1980, p. 142), and yet should not be seen as a political threat to the other elements of the program (Hutchins, 1985, p. 185). He must be an effective speaker and have the knack of getting along well with others (Ingle, 1982, p. 50). He should also be bold, but tactful (ibid, p. 51). On top of these, a facilitator needs to be enthusiastic, have influence, garner respect, have a degree of understanding of
company operations, demonstrate training skills, and show that he is available full-time (Hutchins, 1985, p. 185).

Dewar describes three ways to make the selection of facilitators. They are:

[1] Appointment of an individual by some key management employee involved with Quality Circles.

[2] Selection made from interviews among candidates nominated by various members of the steering committee.

[3] Chosen as a result of interviews conducted for employees who responded to an open invitation regarding the facilitator position. (1980, pp. 143-144)

Ideally facilitators come from the ranks of volunteers. It is usually best if the person has been around the firm for some time. As Hutchins reminds the reader: "It is doubtful whether an individual new to the company, its culture and its people, could become sufficiently well accepted by people at all levels to fulfill the role satisfactorily." (1985, p. 185) It is not unusual for these individuals to come from, as already mentioned, the ranks of the middle managers and first-line managers (supervisors or foremen) who are sold on the Q-C concept. A typical set of criteria for selecting facilitators can be seen in Table 7.

Specific training programs for facilitators vary. Most facilitators are trained externally, usually in seminars offered by Q-C consulting firms and associations (Fitzgerald and Murphy, 1982, p. 105). Table 8 presents one typical approach toward instituting Q-C educational seminar. It
Table 7
Selection Criteria for Quality Control Facilitators

1. Must be able to train Q-C leaders and members in Q-C techniques.

2. Must be able to express ideas and Quality Circle philosophy, both written and verbal.

3. Must have overall view of the organization's way of managing and doing business.

4. Must have demonstrated enthusiasm about Q-Cs.

5. Must have demonstrated leadership and organizational ability in the participative management process.

6. Must have ability to contact and obtain support from all levels of management.

7. Must be sensitive to needs of others.

8. Must be able to organize and conduct meetings and presentations.

(source: Mohr and Mohr, 1983, pp. 65-66)
Table 8
Training Program for Facilitator

Topics:

1st day
1. Introduction
2. History of Quality Circles
3. "If Japan can, why can't we?"
4. Circle presentation
5. Circle formation and operation
6. Circle program implementation plan

2nd day
7. Circle models: Japan versus the United States
8. Functions of facilitator, leader, members and Steering Committee
9. Quality Circle Techniques
10. Brainstorming

3rd day
11. Pareto Diagram
12. Cause and Effect Analysis
13. Control Charts
14. Pre-control and histograms
15. Check sheets, graphs
16. Management Presentations

4th day
17. Leadership and Communication
18. Group Dynamics and human relationships
19. How to operate and help Quality Circles
20. Project presentation
21. Implementation Plan: Review
22. Open Discussion

Duration: 4 days plus as required

(from: Ingle, 1982, p. 157)
lasts approximately four days, depending on the vagaries of the individual organization. A second example is Robert Callahan's approach, based on Lockheed's experience, consists of two 40-hour courses presented in a formal classroom atmosphere and in actual practice (1982, p. 95).

The first course concentrates on (1) large doses of group dynamics, (2) motivation theory, (3) problem-solving techniques, and (4) communications. The second facilitator course provides training in (5) advanced Quality Circle techniques. At this point, the emphasis is on the facilitator's teaching techniques. Role playing, case studies, and practical application examples are used. According to Callahan, after the first forty-hour course, the students have been introduced to the skills necessary to start and carry a Q-C for its first five months of operation. Sud Ingle's views are somewhat similar, stating that the training for facilitators should focus on (a) teaching techniques, (b) learning techniques, (c) human relations, (d) statistics, (e) group dynamics, and (f) the organization's climate -- the workings of the company (1982, pp. 153, 156). Fitzgerald and Murphy approach suggests training which include the following topics:

* The Q-C concept.
* The company's strategic plan.
* The motivational basis of Quality Circles.
* Quality Circle structure.
* Basic and advanced tools for Q-Cs.
* Training leaders and members.
* The role of facilitators and others.
* Administering a Q-C system.
* Upgrading and expanding training.
* Arranging presentations to management.
* Consulting with Circles.
* Expanding the Circle system. (1982, p. 105)

The Circle leader performs much in the same manner as the facilitator (Dewar, 1980, p. 170). Many of the leaders usually come from the ranks of supervisors, foremen, or other first-level work leaders (Baird, 1982, p. 10; Fitzgerald and Murphy, 1982, p. 90) who will be having Circles within their own work area (Ross and Ross, 1982, p. 143). Experience, according to Dewar, demonstrates that Circle activities "will have a greater degree of success when the supervisor is the initial leader." (1980, p. 171) Patchin states that: "The circle process offers such a powerful tool for building supervisorial capability and rapport with people that it is a tragedy to undercut him or her by introducing another person in the leadership role, whether by election from the membership or as a strong central office facilitator." (1983, p. 46) Or as Mohr and Mohr observe:

If the facilitator is something like a football coach, the leader can be compared to a quarter-back. (1983, p. 66)
The Japanese insisted that there be this strong relationship between the foremen and the Quality Circles; however, as the number of Circles multiplied they ran out of foremen to serve as leaders, and found out that individual Circle members made excellent group leaders after a short training period (Alexander Hamilton Institute, 1981, p.18).

For this to occur, the normal set of events has the foreman, after the Circle has been in operation for some time, select an assistant leader, usually one who has been active in a leadership role within the Circle (Dewar, 1980, p. 172). "After that individual has received leader training and has had an opportunity to demonstrate effectiveness in the role as assistant leader, promotion to full Circle leader occurs." (ibid.) Once the supervisor feels relaxed about not being there in person, then it is a good time for the Circle to consider electing its leader since by now the members understand who is needed to operate effectively (ibid, p. 173).

"Everything that a circle member knows must be known to a greater extent by the circle leader." (Fitzgerald and Murphy, 1982, p. 101) Thus by necessity their training is more concentrated (Callahan, 1982, p. 95). It is also as Baird observes that "(t)hese people must be chosen carefully: QC meetings will not be very productive if the participants' major problem is their supervisor, who just happens to be there conducting the meeting." (1982, p. 12)
The primary responsibility of the leaders is in what is being discussed rather than how it is being discussed in the committee (Mohr and Mohr, 1983, p. 66). They are in charge of the meetings (Patchin, 1983, p. 49) while understanding that they are only one voice in the group (Barra, 1983, p. 77).

The selection process for leaders includes (1) utilizing candidates for facilitators who were not selected who wish to become Circle leaders, (2) nomination of individuals by either the Steering Committee or by a panel of managers, (3) asking for volunteers from the general ranks, or (4) simply having the manager of the department that is going to have Q-Cs draft them from his supervisorial cohort group (Dewar, 1980, pp. 171-172, op. cit.). Table 9 indicates some of the criteria used in the selection of these individuals.

Training for Quality Circle leaders is a blend of the technical (applied) and theoretical aspects of the process. As he or she is trained, that person in turn is responsible for the training of the members at the seminar and functioning group levels [see Table 10]. "Circle leaders must be taught to give proper recognition to others as often as possible." (Patchin, 1983, p. 49) Activities therefore need to focus on their abilities to make the leader not only cognizant of the techniques necessary to run a Circle
Table 9
The Role of A Circle Leader

* Provide Sincere support: They must convince Circle members that they really want to give Circles a try and that they need their help. Circle meetings should be held regularly, and leaders should be supportive of the things the group wants to try to do.

* Use creative problem-solving: It is the leader's responsibility to see that the group continues using the creative problem-solving process to attack problems. Failure to do so may be the first sign of trouble.

* Guide without dominating: The leader is an equal with employees in the Circle. The leader must be careful not to dominate the meetings or dictate the problems on which the group will work. Guide the group very carefully.

* Involve all members: The leader should make sure that all members have a chance to participate in all meetings. The leader must find ways to allow shy members to offer their problems and problem solution ideas to the group for consideration.

* Keep management informed: Publish minutes of meetings, invite management to meetings, and ask management for ideas.
Table 9

The Role of A Circle Leader -- continued

* Keep nonmembers informed: People in the section who are not Circle members must be kept informed about what the Circle is doing: the problems being tackled, any proposed solutions which may affect nonmembers. Some ways of the ways of doing this are to discuss Circle activities in workplace meetings, involve members in data collection, and post charts and other circle-generated data in the department.

* Cooperate in tracing and measurement projects: Projects must be measured and followed up to insure that problem solutions are effective. It is the leader's responsibility, working with the facilitator, to make sure that the group verifies the effect of a problem solution and takes any additional corrective action needed.

* Develop Circle members: Quality Circles are a people-development concept. It is up to the leader to allow and encourage Circle members to assume responsibility for some phase of a project or for conducting some phase of a Circle meeting. Members should be allowed to fill in as leaders when the supervisor is absent.

(Compiled from: Barra, 1983, pp. 77-78)
<table>
<thead>
<tr>
<th>Quality Circle Leader Selection Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work area supervisor is recommended for pilot programs.</td>
</tr>
<tr>
<td>2. Enthusiasm</td>
</tr>
<tr>
<td>a. Demonstrated in work performance</td>
</tr>
<tr>
<td>b. Enthusiastic about Quality Circles</td>
</tr>
<tr>
<td>c. Has motivation and initiative</td>
</tr>
<tr>
<td>3. Ability to communicate (includes listening)</td>
</tr>
<tr>
<td>a. Demonstrated ability to train and lead</td>
</tr>
<tr>
<td>b. Able to make management presentations</td>
</tr>
<tr>
<td>c. Ability to learn how the Q-C program functions</td>
</tr>
<tr>
<td>4. Ability to organize</td>
</tr>
<tr>
<td>a. Has demonstrated organizational abilities</td>
</tr>
<tr>
<td>b. Able to use Q-C program effectively</td>
</tr>
<tr>
<td>5. Ability to work with others</td>
</tr>
<tr>
<td>a. Contributes to the development of others</td>
</tr>
<tr>
<td>b. Sensitive to needs of others</td>
</tr>
<tr>
<td>c. Open minded and flexible</td>
</tr>
<tr>
<td>d. Provides effective feedback to group</td>
</tr>
<tr>
<td>6. Respect</td>
</tr>
<tr>
<td>a. Positive area in work area</td>
</tr>
<tr>
<td>b. Has respect from peers and management</td>
</tr>
<tr>
<td>7. Participative management style</td>
</tr>
</tbody>
</table>

(source: Mohr and Mohr, 1983, pp. 69-70)
effectively but to be able to apply these concepts in vivo, as the Circles are in actual operation.

The facilitator, with the assistance of the firm's education and training department is responsible for providing the training that a facilitator receives (Dewar, 1980, pp. 174-175). Consultants can help in the process, depending on the company's resources and outlook. Table 11 describes an example of this type of program.

The final element in this equation are the Circle members. They are chosen much in the same way as the facilitators and supervisors:

"(e)mployees working in a given leader's area of responsibility are invited to attend an overview presentation and then are given a week to decide if they want to volunteer to be on the quality circle that will represent their work area. A predetermined number of circle members will are chosen from a hat; the balance of the names makes up the waiting list of alternatives. They may also be considered as the nucleus for a second quality circle in that particular area. (Mohr and Mohr, 1983, p. 71)

Participation is purely voluntary (Barra, 1983, p. 65). Employees can chose to join. Circle members can chose to leave the Circle as they wish (Dewar, 1980, pp. 185-186).

The members demonstrate confidence, trust, cooperation, and self-satisfaction. Those few members who seem to dislike the process and leave their circles demonstrate the voluntary nature and freedom of choice that exist. Of the few that leave, most return to the process after testing their freedom and their trust in management's willingness to go along with their choice. (Barra, 1983, p. 113)
Table 11
Leader's Training Program

Topics That Should Be Discussed

1. Introduction
2. Brainstorming
3. Group Dynamics
4. Leadership
5. Training Adults
6. Total Quality Control
7. Basic Quality Control Tools (data gathering)
8. Basic Quality Control Tools (data analysis)
9. Brief review of advanced Quality Circle tools
10. How to start and expand Circles
11. Presentation techniques
12. Case Studies
13. Quality Circle stimulation
14. Communication
15. Review

Duration: Eight hours plus as required on a monthly basis.

(from: Ingle, 1982, p. 155)
"What's in it for me?" is a question which needs to be answered. Dewar answers by indicating that a member receives:

* training in problem analysis;
* the opportunity to identify the problems you have been living with and no one seems to care about;
* being recognized as the "expert" in your area;
* being allowed to select the problems to be analyzed;
* having the chance to actually analyze the selected problem;
* the opportunity to present recommended problem solutions directly to management; and
* the chance to contribute to enhancing the organization's quality reputation, to make it more competitive, and to assure greater job security. (1980, p. 189)

Circles and their members direct their attention to "problems and projects under their control." (Ross and Ross, 1982, p. 143) It is important to emphasize that Quality Circles should only operate within their immediate area of responsibility to be at their most effective "as these are the only problems members can be reasonably sure of having the capacity to solve." (Mohr and Mohr, 1983, p. 72) Or as Fitzgerald and Murphy write: "the team should attempt to match as closely as possible the characteristics of the work area and the members with the suggested criteria [for the Q-C]." (1982, p. 85)
Q-C member training consists of techniques which help them identify areas of study, establish goals and objectives, data gathering, problem-solving techniques, how-to-run-a-meeting techniques, and presentation skills. The scope of the training thus involves (1) organizational awareness training, (2) productivity awareness, (3) presentation skills, (4) effective meeting skills, (5) advanced problem-solving and problem-preventing techniques, (6) objective setting, and (7) participation in member forums (Barra, 1983, pp. 143-144). In particular, as indicated earlier in this chapter, members are given specific training in brainstorming techniques, data collection techniques, data analysis, pareto analysis, cause and effect analysis, histograms (fishbone diagrams) [see Figures 2-3 and 2-4], and control techniques (see Hutchins, 1985, chapters 5 and 6; Ingle, 1982, chapter 10). According to the Alexander Hamilton Institute, an adequate course for members looks like the following:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection of data</td>
<td>3</td>
</tr>
<tr>
<td>Graphs, Pareto Diagrams, histograms, check sheets</td>
<td>3</td>
</tr>
<tr>
<td>Cause and effect analysis</td>
<td>3</td>
</tr>
<tr>
<td>Control charts and process capability theory</td>
<td>6</td>
</tr>
<tr>
<td>Role of the foreman</td>
<td>1 1/4</td>
</tr>
<tr>
<td>Quality Control in the shop</td>
<td>1 1/4</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>1 1/4</td>
</tr>
</tbody>
</table>
Fishbone Diagram:
Headings of Causes

Figure 2-3: Fishbone Diagram
Headings of Causes
(Hutchins, 1985, pp. 52-53)
CAUSE AND EFFECT Diagram or "Fishbone Diagram"

Figure 2-4: Cause and Effect Diagram
(Greshner, 1984, p. 94)
Procedures for process improvement 3 hours
Quality Circles 1 1/2 hours
Practical exercises 7 1/2 hours
Case studies and discussion 11 hours

13. Form Circles.

Once the training is underway, the coordinator should review the progress being made by the participants in terms of their getting to know the "theory" and getting the initial Circles started (Ingle, 1982, p. 78, op. cit.). Earlier in this section, it was emphasized that the initial Q-Cs should be pilot projects to see how practical the concept can be in actual operation. The motto of "start small" is very much taken to heart in this regard throughout the literature. Let the operation begin!

Mohr and Mohr and Barra suggest that the pilot phase lasts for up to six or eight months after start-up (Barra, 1983, p. 53; Mohr and Mohr, 1983, p. 77). This is akin to a shakedown cruise in that benefits and liabilities are carefully monitored and assessed on a continuous basis, and changes or adaptions are implemented to "smooth-out" the operation of the Quality Circles. Fitzgerald and Murphy point out that:

* "Even when using the best criteria available, it is impossible to predict with 100-percent accuracy how a supervisor will react in a circle setting.

* Sometimes the best course of action to take with a struggling circle is to let it struggle.
* The synergism [producing a whole that is greater than the parts (Hastings, Bixby, and Chaudhry-Lawton, 1986, p. 106)] that develops in most circles is a powerful force.

* Directive supervisors can change their styles if they see a personal reason for doing so (that is to achieve success)." (1982, pp. 87-88)

Fitzgerald and Murphy also believe that an important for Circles to accomplish is to set up their own charters (ibid, p. 113). These are different from the goals and objectives that the members set up. The charter spells out the behavior of members and effectively act as the Circles' own mission statements. An example that these authors give can be seen in Table 12.


Top management cannot delegate the tasks of insuring that all is going well to the coordinator, facilitator, or group leaders, especially in regard to middle management (Alexander Hamilton Institute, 1981, p. 98). Reviewing the progress which is being made is an extremely important step in the process (Ingle, 1982, p. 78) not only at the pilot phase but as part of the quotidian routine of the organization. "Monitoring a Circle programme at regular intervals gives lower levels of management the clearest possible indication of the importance attached to Circles by their superiors." (Hutchins, 1985, p. 133) Without this review, the synergy that is created could either be weakened or
Table 12

Quality Circle Charter

1. Membership in the Circle is completely voluntary.
2. The Circle is to meet for one hour each week during normal working hours.
3. The Circle consists of a leader, a recorder, and a member.
4. All members are to be trained for a minimum of eight hours in the skills they need to operate effectively.
5. The work-place problems that the Circle selects to solve are to be limited to those that fall within its area of authority and control.
6. The Circle has the authority to call on expert resource people from within the company to help in its efforts at problem solution and cost reduction.
7. The members agree to set goals for achievement for the coming year within three months of Circle establishment and to revise these goals on a yearly basis.
8. The Circle is authorized to call on the department facilitator at any time for assistance in problem solution.
9. The Circle is authorized to suggest any ideas it has for inclusion in Q-C training.
10. The members agree to consider any idea suggested by another Q-C or an outside source that might help the Circle in its goal achievement.
11. All suggestions referred to the department facilitator are to be responded to within two weeks. If a response cannot be given at the end of two weeks, the Circle is to be notified, the delay explained, and a new date specified for receiving a response.
12. The members agree to arrive on time for all meetings and to complete all assignments in a timely manner.
13. Every member agrees to contribute his or her leadership ability to the Circle.
14. Decisions are to be made by consensus, and enough time is to be allowed to discuss all the issues thoroughly.
15. All conflicts that may arise between members or between this Circle and others are to be discussed openly.

(source: Fitzgerald and Murphy, 1982, pp. 113-114)
evolve the Quality Circle to an undesirable aspect of the organization's management routine.

An important aspect of the review process is to ascertain whether or not Circles need to expand—whether to form another Circle because the size is too large, whether to form an interdepartmental Circle by having someone from another area join the group as a temporary member (Dewar, 1980, p. 186), to form a new Circle that is interdepartmental in its membership to tackle issues which cut "across-the-board", or to redesign the Circles if there are problems in leadership styles or if the members are unrealistic in designing their task (see Thompson, 1982, pp. 32-41). Once the members have gotten used to how they can create innovations, the group will demand greater involvement with others outside the Circle (Hutchins, 1985, p. 204). "In some cases outside help from vendors or engineering may be needed." (Ingle, 1982, p. 78) Ways to monitor the program can use the following parameters:

- cost/benefit ratios,
- quality improvements,
- productivity improvements,
- absenteeism,
- grievances,
- morale--attitude surveys,
- sick leave,
- accidents/safety,
- energy saving,
- waste reduction,
- inventory control,
- schedule improvements,
- housekeeping,
- timekeeping. (Hutchins, 1985, p. 133)
For indicators of internal Q-C wellness, Nemoto, as a top level executive, for example, looks for (1) self-evaluation for liveliness, (2) the number of meetings held, (3) the rate of attendance, (4) the rate of participation in discussion by members, (5) number of suggestions received, (6) number of themes [problems] solved, (7) the number of times that members participate in presentation meetings, (8) general conditions and atmosphere of Circle meetings, (9) how well the Circle is managed, and (10) how well the foremen and other interested parties support the Circle's activities (1987, pp. 215-216).

The review process also involves management's and the Steering Committee's assessment of how the Circles publicize themselves to the rest of the firm and how Q-C members are rewarded for a job well done. Management should share the spoils of success (Patchin, 1983, pp. 114-115), although Hutchins is vehement that these rewards should not take the form of cash (1985, p. 197). The phenomenon of the Pygmalion Effect is very much evident: people do what is expected of them (Mohr and Mohr, 1983, p. 36). The philosophy of the Quality Circle is if management encourages everyone to participate and to share in the gains of their participation, employees will want to produce.
Shortcomings of Quality Circles

Much of the literature explicitly agrees with Ross and Ross' view that the major roadblocks to Quality Circles are (1) inadequate training, (2) poor management response to the Circle, (3) unrealistic expectations, and (4) vague measures (1982, p. 172-173). A fifth roadblock is an improper time-line, and an inability to properly budget for the process (Fitzgerald and Murphy, 1982, pp. 25-28) makes for a sixth obstacle to successful Quality Circles.

Fitzgerald and Murphy go on to suggest that there are ten "critical" disadvantages that a company should consider before proceeding with a Quality Circle program (1982, pp. 21-22). These are:

1. an initial decrease in productivity due to the man-hours spent in the efforts of planning, training, and implementation which without an appropriate measurement tool is seen as nonproductive, with a decrease in output becoming apparent;

2. a large initial investment of time and money is required to prove that the concept works—the time itself spent on the efforts, the outlays for a facilitator, training materials, consulting fees, etc. (according to Fitzgerald and Murphy these costs on average add up between $40,000 and $75,000) (see Mohr and Mohr, 1983, p. 53);

3. the chance of error is high at first since people are bound to make mistakes as they try out the concept for the first time;

4. overexpectation may overtake some of the participants, and if success is not quick and noticeable, some disappointment arises and may even lead to a small dropout rate;
5. Q-Cs threaten traditional bureaucratic authority structures, and those who feel threatened are likely to resist actively or passively the attempt to form the Circles;

6. without the supervisor's direct intervention, some of the workers could feel threatened as well since they then would be lacking the direction and definition of task which they need (see Lawrence and Lorsch, 1974, p. 71), a problem which Fitzgerald and Murphy identified occurring most often with the older workers and those very new to the company;

7. some time is going to have to be devoted in developing trust and interpersonal security at the beginning phase of the Circle program, diffusing traditional mistrust and perceived conflicts-of-interests between supervisors and subordinates;

8. there will be individuals who perceive Quality Circles as having an end as a beginning and not take the Circles to be what they are meant to be—an integral part of organizational life;

9. confusion exists once Circles are implemented because of the experimentation which occurs in terms of operations, skills involved, new roles and the ideas engendered; and

10. the work accomplished by Q-Cs necessitates a change in the existing systems of control in order to create a wider access for the Circles to define, investigate, act, and engender responses and alternatives to institutional problems.

Implicitly, however, the literature points out that there may be some other shortcomings in the understanding and use of Quality Circles. The concept of Quality Circles is more complex than it seems, and issues which are paramount within the context of the Q-C philosophy focus on the institution's philosophy itself and on the organization's culture (Robson, 1985, p. 158). From these perspectives, as pointed out earlier in the chapter, Jeremiah J.
Sullivan's opinion that Ouchi's view of Japanese success may be due to a misreading of the key elements of their division of labor (1983, p. 137) needs to be reviewed.

As Shimada writes:

Because of increased interest in the performance of the Japanese economy, books like Japan as No. 1 by Ezra Vogel, Theory Z by William Ouchi, and The Art of Japanese Management by Richard Pascal and Anthony Athos gained a phenomenal popularity both in the United States and Japan. In Theory Z, for example, Professor Ouchi asserts that American firms do not lack capital or technology. What they lack is the human factor. He maintains that in successful business organizations, there exist "trust", "subtlety", and "intimacy"—elements typically observed in Japanese firms and in some uniquely successful American corporations. Ouchi proposes essentially a restatement of the classical stereotype of mystic Japanese industrial relations. (1985, p. 46)

Japan's workplace is greatly influenced by the existence of lifetime employment, slow promotion and infrequent evaluation (!), nonspecialized career paths, implicit control mechanisms, collective decision making, collective responsibility, and holistic concerns for employees' social as well as economic needs (Sullivan, 1983, p. 135). This means that Japanese methods work well because of a built-in sense of stability, motivated by the expectations brought about by "guaranteed employment", an idea which is almost anathema to the American way of doing things. [see Figures 2-5 and 2-6]

As an example, one of the major symbols of their managerial process, the concept of lifetime employment, is understood to be "based on a relationship of exchange of
1980's Worker Groups
Based on Motivation

- 1/3 are white collar clerical and service workers
- want job security and don't look

Security Workers 22.0%
Dedicated Worker 19.0%
Go-Getters 15.0%

- work more important than money
- mostly over 35 yrs. old
- most of them under 36
- ambitious
- motivated by money and promotion

Figure 2-5: 1980's Worker Groups
Based on Motivation: The Old Guard
(from Ingle, 1982, pp. 177-178)
1980's Worker Groups
Based on Motivation

- least motivated to work hard
- lowest earnings, least educated

The New Worker

- college educated, white collar, & middle management
- youngest of groups
- hungriest for challenge

Figure 2-6: 1980's Worker Groups Based on Motivation: The New Worker
(from Ingle, 1982, pp. 177-178)
mutual benefits between the individual and the organization" (Takagi, 1985, p. 85) which encourages both management and workers to look after each other. But does such exist in Japan? Takagi indicates that two studies by Yoshino (1968) and Takezewa (1975) point toward a passivity on the part of workers which is referred to as "Large Company disease". (ibid, p. 2)

Two shortcomings become apparent from the above. In the first place, the motivators which Ouchi and others point out as being effective are being questioned outright. Social cohesion is no guarantee against anxiety in a bureaucracy (Blau, 1974, p. 143), or of engendering differing values among the employees (Zander, 1985, p. 108).

"In short, the very processes required for social integration in a group give rise to other processes that lead to social differentiation." (Blau, 1974, p. 201)

Secondly, stability--based upon "trust", "subtlety", and "intimacy"--needs to focus on the specific functions of the organizations in order to better identify the roles, expectations, and demands in order to bring them together in a controlled (positive) form of conflict (Hambrick, 1981, p. 253; Harshman, 1982, p. 7; Matejko, 1986, p. 356; Pettigrew, 1973, p. 4; Weick, 1979, p. 220). This is exemplified by Lorsch and Morse's findings which indicate that in less effective plants, work was more ambiguous, "and as a consequence, less appropriate to the certain external
environment [which defines what is expected of them] and to members' predisposition." (1974, p. 71) There is a tendency to attract likenesses and avoid contrasting ideas, and in an organization such a practice by the bureaucracy as a whole results in misprojecting what the actual situation may actually be (Keegan, 1984, pp. 62, 107). As Sullivan indicates:

A case can be made, however, that Japanese managers and employees generally view hierarchical relations, the exercise of control and power, and sharp status differences as the key to building trust relationships. (1983, p. 137)

A third implicit shortcoming is the role of the organization in regard to the employees. As already noted above, the verosimility of some of the assumptions on motivators which are seen as responsible for and coming from a sense of stability can be questioned. "By focusing exclusively on the relationship between actors they may blind us to the importance of context within which they are acting." (Lee and Lawrence, 1985, p. 134)

One tendency of the corporation is to restrict decisions upon itself, making itself the major determinant of participation, reducing the real amount of non-formal/non-structural decision making ability. A second tendency is for the organization to shape perspective according to its own image, superimposing it on the members of the company. In so doing, the organization can accentuate the "moral complex" relationship between the bureaucr-
acy and the individuals (Barnard, 1956, p. 175; for a positivistic legal philosophical explanation see Lindahl, 1977, pp. 199-205), insuring that there is a stronger attachment to the continued survival of the institution focusing on the organization as a collective rather than in terms of individual perceptions (Stogdill and Bass, 1981, pp. 196, 199). The net result is the caveat of be wary of the vestiges of patronage which can appear such as it has in Japan (Etzioni, 1975, p. 399; Matejko, 1986, p. 13, op. cit.).

Quality Circles demand commitment to the company as well as to themselves (White, 1983, p. 23). In Japan, however, as Lincoln, Hanada, and Olson's study on Japanese workers documents, paternalism "toward employees, their families, and the community at large" (1981, p. 94) occurs more often than not. Moreover, R.C. Clark's study of Japanese companies observes that employees resent the company's "moral levers" used to build commitment and have a sense of helplessness in the face of their superiors' autocratic and authoritarian poses (1979, pp. 187-188).

Sullivan is also of the opinion that:

An assumption underlying Theory Z is that industrial mass society, in the absence of strong cultural forces to counter its influence, fosters an environment in which family ties, traditions, and social institutions are all weak in their impact on social behavior, social cohesion, and social stability. The result is that people tend to lead highly mobile, unstable, drifting lives (Ouchi and Johnson, 1978). They feel unhappy and dissatisfied. . . .
In sum, the corporation must adopt a moral role in society. In its new role of industrial clan it will behave as a force for good and will promulgate rules or values that will influence employees to behave in a manner that fosters the order and stability so needed in mass society. (ibid, pp. 133-134)

The problem here is that, as Robert Mockler indicates, management control means a systematic effort to set criteria (1972, p. 2). "Control is effecting change in organizational behavior which is consistent with predetermined objectives and standards of the organization" (Bullock and Conrad, 1981, p. 4), with role discrimination defining the behaviors which are acceptable (Emmerich, 1966, p. 361), as these are determined by the functional aspects of the organization (Miles and Snow, 1978, p. 22).

According to Matejko, one reason for the organization's attempt to maintain control is to maintain its own identity. At a time of fast growth and social change the internal stratification within a given system may become entirely upset by the fact that people acquaint themselves with new circumstances, acquire new qualification, and begin to strive for some new social positions. Under the impact of new experiences, the stratification lines and boundary-crossings determined by them become unstable... (1986, p. 356)

Furthermore, as Michel Crozier indicates:

No organization can function, indeed, without imposing some check on the bargaining power of its own members... (1964, p. 163)

To achieve his aims, the manager has two sets of conflicting weapons: rationalization and rule-making on one side; and the power to make exceptions and to ignore the rules on the other. (ibid, pp. 163-164)
Internal scanning (Aguilar, 1967) pp. 77-79), the ability to engender information and pass it on to the organization, thus can act as a threat which organizations reduce by increasing the dominance of the bureaucratic backbone of the organization when transacting with Quality Circles (Savage and Romano, pp. 24, 27-28), demonstrating the relationship which exists between dependence and concentration of authority (Pugh and Hickson, 1975, p. 10).

Under classical Weberian theory of organizational development, a bureaucratic system is made different from a charismatic system by the use of structured decision making (Weber, 1957, p. 337). At stake is the routinization of decisions so as to make them impersonal (ibid, p. 328) and systematic rather than charismatic or personal in nature. Legitimacy becomes used for the purpose of maintaining institutional stability (Burns, 1978, pp. 295-296)--"rightness" being based on the "legality" of the action (Dunkerley, 1972, p. 20), validity due to the "rationality" of the decision (Weber, 1957, pp. 330-333). Or as Merton indicates, the bureaucracy gives "discipline" to institutional behavior (1940, p. 562). Consequently, according to Matejko, bureaucrats neglect the broader social interests and concerns of the members under the disguise of "impartiality" and "rationality" (1986, p. 234).

Such a defensive posture makes the resulting behavior of the corporation take on non-pluralistic tendencies in
order to maintain the status quo (Burns, 1978, p. 296; Schein, 1986, p. 45, op. cit.). The available literature therefore argues that organizational behavior, when dealing with concepts allied to the Quality Circle and Quality Control, has a tendency to take on a corporatist attitude rather than pluralistic or one based on the principles of laissez faire.

In pluralism "both the state and the industry are relatively independent of one another." (Atkinson and Coleman, 1985, p. 43) Each goes his own way. In corporatism the state and the organization are interdependent, recognizing each other's interest, recognizing differences which occur in relationships at the different levels of environmental interaction (macro-level, meso-level, and micro-level) as these relate to interest group representation and economic planning (Cawson, 1985, pp. 15-16; Patchin, 1979, p. 121). Unlike the concept of pluralism which assumes a competitive political marketplace, a neutral state which preserves the an institutional and ideological boundary between the public and private spheres, and voluntarism and methodological individualism within the sphere of individual preference (Cawson, pp. 2-3), corporatism (and neo-corporatism) identifies group and organization behavior in terms of what Schmitter calls 'interest intermediation' where reciprocity exists (ibid, p. 6).
As Michael Atkinson and William Coleman point out, Japan has "traditionally placed [a] greater emphasis on economic growth through the transformation of key industrial sectors", whose "strong demand for industrial policies" allows corporatism to develop (1985, pp. 22-23). Therefore, the "Japanization" approach (see Bonnett, 1985, p. 103) should be seen in such a perspective. Such a perspective would include the following behavioral traits.


[2] Hierarchies among associations and they may subordinate and coordinate the activities of whole economic sectors and/or social classes.

[3] Membership in associations is not always voluntary, and a wide range of de facto as well as de jure arrangements exist both to bind members to 'their' associations and to prevent the emergence of competing ones.

[4] Interest associations are not just the passive recipients of already formed member interests, but may play an active role in identifying and forming those interests.

[5] Interest associations do not merely transmit member preferences to authorities, but may actively and coercively govern the behavior of their members, especially through devolved responsibility for the implementation of public policy.

[6] The state may not be either an arena for which interests contend or another interest group with which they must compete, but a constitutive element engaged in defining, distorting, encouraging, regulating, licensing and/or repressing the activities of associations -- and backed in its efforts, at least potentially, by coercive actions and claims to legitimacy.
Interest associations are not always autonomous entities pressuring the state from without and seeking access wherever they can find an opportunity, but they may be at least partially heteronomous with respect to public authorities and can be brought through selective institutional channels into a co-responsibility for public policy formation, not to mention, again, policy implementation. (Schmitter, 1982, pp. 260-261)

Another way to look at the shortcoming of Quality Circles, at this point, can be seen in Graham Wilson's belief that the United States does not fit into this theoretical mold (1982, p. 220).

In brief, even in areas that most concern them, interest groups in the United States lack the unity, membership and authority essential for the system to be classified as corporatist.

. . . there is no institutional way to regulate the access of interest groups to decision-makers in the United States... Federalism,... and the absence of a strong system of party discipline combine to create a multiplicity of channels of access for the accepted interest group which it is impossible to control. (ibid, p. 225)

A fourth shortcoming of the Q-C rests in its inability to deal with the concept of power, particularly as it relates to individual action and performance. As Crozier and Friedberg indicate "(e)ach organizational solution, because it deals directly with the most threatening element of human interaction, power, raises problems of communication and commitment." (1980, p. 9)

From an internal as well as external perspectives, it is important for any model to understand that in the distribution of power there is an inherent inequality due to

A major assumption which sociologists have of human behavior is that individuals "make choices which accord best with their self-interest." (Pettigrew, 1973, pp. 3-4) The degree of integration which an individual or unit establishes directly relates to their ability to belong (Landecker, 1952, p. 395). As Pettigrew points out:

In the analysis so far, then, man is presented not merely as being governed by the structure of the situation in which he participates but also as attempting, at least to some extent, to shape and to mould that structure over time to suit his own interests... (A)n individual's ability to achieve this moulding is very much a function of his ability to generate sufficient power and influence to impose his will on others in the face of opposition. (1973, p. 4)

Power can be either a positive or negative factor in any type of relationship (Stogdill and Bass, 1981, p. 170). Following Bentham's principles of imperation and legal position (Lindahl, 1977, p. 64), the agent can act either for individual purposes, an aggregate purpose such as an association or a duly recognized organization, or a combination of both. Under these conditions, the actual relationships which occur are defined by a specific association characterized by different aspects of the group and that person's integrational ability in that group (Sherif, 1966, p. 153; Stogdill, 1959, p. 134). The key element shaping
the definition is that "(i)ndividuals need to be able to predict each other's behavior." (Stogdill and Bass, 1981, p. 200) This can be positive if all factors pertinent to the group are focused toward one end. However, the differing set of relationships can be negative in that it can fragment the efforts of a group by creating a subset of criteria which may in themselves become more important to maintain status in the group.

In American service industries, Ingle observes the presence of the problems of (1) variety of objectives, (2) no tangible products, (3) branch operations, (4) shift operations, (5) diversity in educational levels and variety of interests, and (6) a lack of competition (1985, pp. 238-239), echoing the properties of Cohen, March, and Olsen's "organized anarchy". (1972, p. 1) Competing demands are built in to the structure, an aspect which successful organizations have used to their advantage (Peters and Waterman, 1982, p. 8). But competing demands also means conflicting interests which need to be harnessed lest these create institutional entropy (Katz and Kahn, 1966, p. 47). Therefore, two behaviors become apparent in the Quality Circle philosophy's inability to deal with power in these types of industries: structural dualism (Goldstein, 1985, pp. 504-505) and "charismatic" tendencies for personal gain (Barnard, 1956, p. 272). [see Figure 2-7]
Quality Circle Structure

Figure 2-7: Quality Circle Structure
(Mohr and Mohr, 1983, p.78)
Quality Circles promote organizational dualism which may lead to institutional conflict bearing a direct
direct challenge to the governance of an organization (see Millett,
1980, p. 175). The possible challenge comes from the
eventual desire of the Quality Circle to override the
bureaucratic framework by trying to place themselves above
the organizational structure itself (Lorsch and Morse, 1974,
pp. 69-71, op. cit.), creating a conflicting framework
within the functional scopes of the corporation as a whole
al., 1974, pp. 40, 42; Thompson, 1965, pp. 3-4).

Selznick argues that when there is a perceived change
at the structural level the "mass man", the every-day
mensch, or the employee (worker) in organizational terms, is
unqualified to truly exert an influence on his culture, and
that as a result, he creates a new elite to guide him which
takes on the vestments of the deposed or deactivated regime
(1950, pp. 320-321, op. cit.). As the Q-C literature
points, the Quality Circle is a part of the bureaucracy,
albeit ideally a parallel structure to the regular elements
of the bureaucracy. Thus it creates its own set of
competing demands, and as the studies by Cohen, March, and
Olsen (1972), Hambrick (1981) and Hinings et. al. (1974)
demonstrate, if the Circles reduce institutional
uncertainty, their base of power increases, seriously
questioning David Hutchins' assumption that Quality Circles have no power save that of management support (1985, p. 20).

"The easiest way to sell teamwork to United States managers is to show them that it gets better results than fragmented individual effort." (Schein, 1986, p. 45) The Quality Circle literature states that thinking in terms of the company rather than the self helps in power equalization (see Stogdill and Bass, 1981, p. 193). The philosophy tries to make, in George Herbert Mead's words, "the self [become] an object to the organism itself." (1982, p. 147) However, Landecker indicates that the stronger the definition of bureaucratic structure, vis a vis class crystallization, "the more class crystallization clashes with the value of equality and individual worth." (1980, p. 52) This is specially the case with how individuals are perceived.

Supervisors by their position have some "direct control over what is rewarding of others." (Stogdill and Bass, 1981, p. 148) This is one reason the role of the supervisor in the operation of Quality Circles has to be so carefully monitored. The desire to be seen as more than just a mere sum of the parts (Sherif and Sherif, 1969, p. 89, op. cit.) is rather strong. An equilibrium between institutional behavior and personal goals such as that identified by Simon (1957b, pp. 110-111) means that personal goals and organizational rewards need to be compatible and accessible. Status and how it is achieved can therefore create a problem when
proper recognition is not forthcoming or accessible for individuals to establish (see Stogdill and Bass, 1981, pp. 148-149). Persons who believe themselves to give a greater contribution and those who are acknowledged to do so, prefer to have those attributes recognized in tangible ways which enhance status and ability to influence the decision making machina of the organization (ibid, pp. 10, 589) in order to increase their self-worth and actualization potential.

Quality Circles and U.S. Education

Arthur Land asks the question "is the Q-C for education?" (1983, p. 7). He believes that there is a strong case for it as Brodinsky's survey seems to point out (1983, p. 31). The basis for a Quality Circle is in place at most colleges and universities (Ingle and Ingle, 1983, pp. 285-287; Wyer, 1982, p. 111). Jean Wyer argues that the basic ingredients for QCs have been around for a long time, since the concept of faculty collegiality as described by Corson and Millett as far back as the late fifties and early 1960s demonstrates [see chapter three, Format of the Questionnaire].

That the basics are in place, however, does not mean that these are used according to the necessary plan of action. The pilot study in this project indicates that the respondent's do not believe that the University of Arizona, for example, has an QCs elements in place (only 11.76% of
the respondents who represent a wide array of the campus environment thought that there was a nominal environment for QC activity). However, according to a 1979 U.S. Supreme Court case, certain colleges do have a strong degree of interaction in decision making between the faculty and the administration, as evidenced at Yeshiva College. The key, as usual, rests with the institution's leadership found in top management, and its focus on what type of organizational activity it wants to see in place.

James Bonner shows how Quality Circles can work within a public school system (1982, p. 681; Brodinsky, 1983, p. 31). Circles can be used for improving instruction, help reduce costs, and/or help plan for organizational change (Albrecht, 1982, p. 2; Ingle and Ingle, 1983, ch. 22; Lilly, 1985, p. 1). However, most of the examples in the literature seem to be temporary, or, if not, suffer from the general neglect that the literature has shown to Q-C activity since 1985.

The most often quoted examples from the public school sector come from Michigan (Bonner, 1982) and Dayton, Ohio (Ingle and Ingle, 1983, pp. 286-291; Lloyd and Regh, 1983, p. 24; E. Regh, 1983). However, more numerous examples come from the community college area (for examples, see Moretz, 1983; Murray, 1983).

The most comprehensive look at Quality Circles comes from the vocational education institutions (Imel, 1982, p.
2). The reason, according to Harshman, is due to "what changes may have to occur in education as American companies adopt [Q-Cs]" since the educational system "has been certifying managers and providing skilled workers for American business and industry for most of this century."

(1982, p. 32) "Perhaps the most important contribution vocational education can make... is to teach and demonstrate the principles and practices of the (Q)uality (C)ircle."

(Lloyd and Regh, 1983, p. 24)

Unfortunately, the bottom-line in the relationship of Quality Circles and educational systems is summed up by Edward Lilly's statement that:

In general, the literature on (Q)uality (C)ircles is rather sparse; however, more in depth investigations and analysis of the concepts is warranted, if it going to be applied to the field of education. (1985, p. 5)

Summary

In spite of the lack of documentary sources for the effect of Quality Circles in schools, as Ingle and Ingle indicate:

Formal or informal groups are widely used in all types of activities and organizations: social, religious, political, business. Religious and social institutions prefer groups, or, as they are sometimes called, committees, to achieve a wider participation in their affairs. Most activity in educational institutions is also run through the formal groups called committees. (1983, p. 103)

Quality Circles are a complex form of organizational change, existing, as Goldstein indicates as a "parallel
structure" with the mainline bureaucratic framework (1985, p. 505). Its key is to create an environment where individuals are challenged to perform in order to be able to reap the benefits derived from success. Q-Cs are not without power, they are, in effect, another way in which an institution harnesses its resources to meet the demands being placed on it, presenting a classic example of Cohen, March and Olsen's (1972) "organizational anarchy". This should not be surprising, since, as has been noted in this chapter, the concept began with the Japanese adapting American management theory to their own form of culture.

The Quality Circle process includes (1) problem identification, (2) problem selection, (3) problem analysis, and (4) recommendations for action (i.e., solutions). For these to take place, however, the following criteria must be present:

1. membership in the Circles must be made up of individuals who are part of the normal work force;
2. participation must be voluntary for the most part;
3. meetings need to be held on a regular basis; and
4. members must be trained in problem-solving and group process techniques.

The bases for Quality Circles success are:

1. Improved communications between individuals and institutional subunits by fostering openness and flexibility in the communication process.
2. Job satisfaction and improved morale by adding new challenges to the job and fostering new professional and social skills.
3. Productivity improvement and quality improvement.

And as Imel points out, the bases for Q-C implementation are the following:

1. Top management must understand and be committed to Quality Circles. If present, labor unions should be involved with top management in the decision to install a Q-C.

2. Middle managers and supervisors should be actively involved in all aspects of Circle implementation and operation.

3. Intensive training must be provided for all participants.

4. The organization needs to be prepared for Quality Circle installation so that it can effectively offer proper incentives for participation and the necessary expertise to fully gauge the Q-C process in all aspects of the process.

5. Rules and procedures for the Quality Circle process need to be established. (1982, p. 1)
CHAPTER 3
RESEARCH PROCEDURES

Introduction

The design of this study, as has been noted in chapter 1, centers on the following two queries:

The first question focuses squarely on the issue of whether or not there is a Quality Circle present in the high school.

1. Is there a Quality Circle in name or de facto within the existing framework of the school bureaucracy?

If there is no "official" Q-C policy present,

2. Can the salient features of the high school's climate be distinguished to see whether or not these elements fall under the definition of Circle activity?

Specifically,

2a. Who is involved in such an activity?

2b. Is this type of activity formal or informal in its modus vivendi?

2c. Is participation voluntary?

2d. Is the type of committee activity dependent upon organizational structure?

2e. Are the Circle's recommendations enacted by the administration?
2f. Is there any type of training for members involving problem-solving and interpersonal relation techniques?

2g. Is there any recognition or reward for this type of activity within the school system?

2h. Are there guidelines handed out on how to be good committee members?

These questions form the basis for a perceptual analysis where the members of the schools, based on their first-hand knowledge and participation in the daily routine, determine the high school's understood decision making environment which exists. The instrument used for data gathering is an attitudinal (perception) survey.

The Quality Circle Model was selected because of the very narrow definitions which make up its existence (see chapter 2), making it easier for an investigator to seek out its presence. As the first model to be popular under the rise of the human relations movement in management theory, Q-Cs have many of the attributes which the recent empowering or participative management theories express as valid, and which the public (and its government) believes to be a salve for the ills of American industry and education.

This chapter includes a discussion of the normative reasoning behind the questions presented in the survey, a description of the targeted population, and the procedures for analyzing the data.
The Questions Asked

The major implication for this study is whether or not a currently acceptable management model from business, specifically Quality Circles, exist within the contextual framework of schools? Tangentially, the investigation also asks the question of when Quality Circles exist, do these exist as a de jure use of the model or is it implied on a de facto basis by the existing organizational climate of the high school?

The Sample

The sample population for this study were central administrators, building or site administrators, educational specialists who are considered part of the high school, and teachers. Further identification breakdown of teachers determined whether or not a "career ladder" plan (master teacher, senior teacher, teacher, and new teacher as in the Tennessee Master Teacher Program) was present, and if they were tenured or non-tenured.

This breakdown in the population reflects the theoretical assumptions that there is a difference between the functional units of the organizational structure (refer to Hambrick, 1981; Miles and Snow, 1978) as well as a strong distinction between what constitutes governance and (refer to Millett, 1980). Central administrators represent the governance function (since they are more closely associated
to the policy making body as their immediate representatives). The site or building administrator embodies the management function. And the teachers, along with the educational specialists, belong to the production or engineering function—those who are responsible for turning out the student into the rest of society.

The Study

Seven school districts from fourteen contacted in the eastern central and southeastern part of Arizona cooperated in supplying the data for this investigation. Only in one instance did a school district outright refuse. Three school districts declined due to inexpediency. A fifth school district was willing to participate but at a different time, the same being true of one high school in one of the districts which otherwise was willing to fill out the instrument. These districts were chosen because of their administrative diversity and location.

The school districts in these two areas of Arizona represent different administrative setups in mid-sized and small school districts. Among the respondents is a rural district which sends its high school students to another system (which also is part of the sample base). There is an urban school district which is made up solely of one high school. A third school district, which has both an urban and rural population base, is in the process of establishing
a second high school from a middle school (at the time of the study the school had a seventh through tenth grades). A fourth school district is from a major urban center, comprised of two high schools. There is a rural school district, and two school districts from two small urban areas. The student populations of the high schools range from seven hundred to over twenty-five hundred students. In all, the total number of respondents available represent between ten and fifteen percent of the total number of administrators, specialists, and teachers in these areas of Arizona [for the breakdown of responses please refer to chapter 4].

**Format of the Questionnaire**

The questions chosen for the instrument (for a copy of the instrument see Appendix A) are based on those given by Dewar (1980), Hutchins (1985), and Likert and Likert (1976) as being important for determining the existence or plausibility of Quality Circles (for the use of Likert, cf. Wyer, 1982, p. 113). Appendix C has a sample of the questions used by these three references to determine which questions are appropriate in an examination for Q-Cs.

The instrument was pretested for viability by university faculty and administrators. The literature suggests strongly that many of the key elements of collective action which describes most of the attributes of Quality Circles
are present at the university in both an active and latent form (cf. Corson, 1975; Dressel, 1981; Millett, 1980; Wyer, 1982).

The pilot study comprised of 27 respondents from the University of Arizona, the major feeder institution for the Southern region of Arizona, and one of the two principal feeder institutions for the Central part of the State (Arizona State University being the other). These respondents represented faculty members in three colleges, academic advisors in two colleges, librarians, central administrators, program directors, and research specialists. As a group, these individuals responded in much the same way as those individuals in the school systems, indicating, that in their opinion, Quality Circles were not to be found. Only 11.76% of the sample population believed that there were minimal environmental conditions present for Q-Cs. Along with this perception, the respondents also noted a different perspective on institutional issues (reflected in some of the training they have received as well), and a general sense of not fully knowing what is going on at the University from an institutional point-of-view.

activities closely related to the workshop, enhancing and ever-lasting of QC activities, mutual development, creativity, and quality consciousness, problem consciousness, improvement-consciousness. (Mohr and Mohr, 1983, p. 14). The items in the survey investigate whether or not these elements are perceived to be present at their high school and/or school district at large. The data in the instrument specifically looks at:

I. Active Participation,
II. Ties Between Administration and Teacher Association,
III. Acquaintance with Q-C Model or associated Models,
IV. Official Decision Making Policy in Place,
V. Official Quality Control Mechanism,
VI. Presentations on Quality Circles,
VII. Training in Problem Solving,
VIII. Training in Interpersonal Communication Skills,
IX. Coordination of Committee Related Activity,
X. Public Recognition of Committee Activities,
XI. Flexibility to Encourage Innovation,
XII. Reputation for high Standards,
XIII. Administration's Trust of Teacher Judgment,
XIV. Voluntarism,
XV. The Nature of Committees,
XVI. Task-Orientation of Committee Activity,
XVII. Selection of Solvable Problems,
XVIII. Facing the Facts Realistically,
XIX. Reliance on Participant's Role,
XX. Where Decisions are Made, and
XXI. Use of Written Guidelines.

In the literature, most of the specialists who measure the climate for the possibility of Circle activity (see Dewar, 1980; Fitzgerald and Murphy, 1982; Hutchins, 1985), rely on the overall responses of the participants viewpoints on institutional climate. In this instance, a similar approach is followed, except that an aggregate score of each respondent based on a weighted scale (developed to establish clearer parameters to indicate the potential for Q-C activity or its outright presence) is utilized in order to be more rigorous in the definition of the perceived climate in the school district and at the high school (see Appendix B).

Items 1 through 6 are purely demographic in nature [please refer to Appendix A]. These six points will help establish the degree of heterogeneity of the institutional actors. Item 1 identifies the role of the respondent. Item 2 whether the respondent is tenured or non-tenured. Item 3 tries to establish whether a "career ladder" may be or is in place. Since the high school has the same policy as the district in most policy matters, especially when talking
about personnel issues, no differentiation is made. Items 4 through 6 identify how long the respondent has been at their current position, at their present school, and at their present district.

Items 7 through 10 attempt to define how individuals perceive their own roles in organizational activities. Question 7 asks the respondent whether or not they feel they are active within the high school decision making process while question 8 asks the same, but for their participation at the district level. Items 9 and 10 focus on the respondent's view on the degree of cooperation with the teacher association and on their degree of activity in the local chapter.

Items 11 through 14 identify whether or not the respondents have heard of Quality Circles or any of the derivate models associated with them, specifically Total Quality Control (TQC), Quality of Work Life (QWL), and Management by Objectives (MBO). Theory Z is not one of the items because it is more of a philosophical statement rather than a specific managerial model.

Questions 15 through 20 identify whether or not Circles or any of the close derivate models exist as part of the high school's and/or district official managerial policy. And if not, whether or not there is another type of managerial policy in place (items 17 and 18). Items 19 and 20 focus on, if there is no official Q-C policy, whether or not
there is a specific aspect of the high school's and district's bureaucracy which deals directly with "quality control".

Items 21 through 29 investigate whether or not the respondents have been exposed to specific aspects of Quality Circle participation. Questions 21 and 22 inquire about participation. Item 23 involves training in problem-solving techniques to be used in committees, item 24 focuses on interpersonal relation skills training (also for the purpose of committee activity), items 25 through 27 delve into coordination activities available. Questions 28 and 29 assign themselves to the degree and type of public recognition.

Finally, items 30 through 44 look at the overall internal characteristics of the school's committee activities to see whether or not these follow the guidelines of the Q-C Model as determined by the perception of the participants. Item 30 tackles flexibility. Items 31 and 32 deal with the perception of standards, i.e., how good a reputation do the high school and the district have. Statement 33 focuses on the administration's trust of teacher's individual judgment. Item 34 identifies the degree of voluntarism available for individuals to join committees. Lines 35 through 37 identify whether committee activities are predominantly ad-hoc or standing. Statements 38 through 41 look at task-orientation, selection of
problems, clarity of issues, and the resolve to do the job. Item 42 checks into the degree which committee members rely on their bureaucratic role to resolve conflicts, item 43 refers to the committee's ability to make final decisions, and item 44 checks if there are specific written guidelines to help committee members perform their roles.

**Analysis of the Data**

The analysis of the data collected conforms to the two initial questions. Brought into focus are the 21 factors discussed earlier in this chapter. These elements are discussed from the point-of-view of the respondent's role in the system: (a) a central administrator, (b) a site administrator, (c) a department head, (d) an educational specialist, (e) a master teacher, (f) a senior teacher, (g) a teacher, and (h) a beginning teacher.

The analysis of the data itself is based on a frequency distribution of the responses, and on items 30 through 44 an intercorrelation is also used to determine if any unusual relationships may be present in the data base. Most items (7-14, 17-18, 21-28) in the questionnaire ask for "yes" or "no" answers. Items 30-44 ask for a frequency of occurrence response.

A factor analysis could be used for items 30-44 (which are the only questions based on an interval scale) if any unusual relationship or sub-dimensions would be expected in
that set of items, but was not found to be necessary at this time. Instead, a test of significance (Pearson r) at the .05 level was utilized for these items.

The Quality Control Model emphasizes simplicity in its analytical techniques, in particular the Pareto Principle and the check list (Hutchins, 1985, pp. 48, 50), and a number of the specialists on the Model believe that any analysis of its presence and use should follow the precept of analytical simplicity. Perception is the first step toward careful analysis.

Measurements should be conducted so that an organization will have the information to enable it to make comparisons with other organizations. (Dewar, 1980, p. 273)

The second step in a typical Quality Circle analysis is problem analysis. Therefore, the use of a weighting scale has been made in order to help determine if the respondents believe that there is at least minimal environmental conditions present which would be conducive to the presence of Quality Circle activity at the school [see Appendix B].

As developed, the scale uses 71 as the minimal response for Q-C activity, and 117 as the optimal. Rather than looking for a majority of "yes" versus "no" answers to determine if the high school's environment is conducive to Quality Circles (as it seemingly is advocated in the literature), the focus is to establish a more rigorous
identification of the present environment, as perceived by the respondents.

The number 71 represents the total of the weights given to each individual item response which, in the aggregate, indicates that there elements present in the environment which can engender Q-C activities; 117 is the maximum score which can be achieved in the instrument. Appendix B gives each weight for each response. The weights are determined in accordance to what the literature says are positive, negative, or neutral responses/situations.

Summary

The study focuses on identifying the existence or possibility of existence of Quality Circles in high schools. Q-Cs were selected because of their narrowly defined construct. As befitting the norms of the Q-C Model, the focus of attention is on the perceptions of the participants--the administrators, specialists, and teachers in the high school. Therefore, the statistical treatment was based on frequency distributions and correlation of the responses.
CHAPTER 4
PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The aim of this investigation was to establish a participant's viewpoint of how their school system operates. The primary focus was on the actual existence of Quality Circles in the high school and/or the school district at large as an officially mandated approach toward management. The secondary focus was on whether or not the characteristics observed by the participants as being in place demonstrated the attributes of Quality Circle activity. A scanner read, forty-four item questionnaire was completed by central administrators, site administrators, department heads, teachers, counselors, librarians, and other designated key personnel who make up the engineering aspect (see Miles and Snow, 1978, p. 22) of the high school and the district. The items themselves were selected and adapted from a pool of questions which the literature considers as being appropriate in determining the existence of Q-C activity.
Demographic Data

Seven school districts participated in this investigation. A total of 354 responses were returned from 591 instruments sent, for a 59.90% rate of return. One district asked for only four instruments (representing the central administrators only since they do not have a high school but are a feeder). A second district totaled only eighteen instruments which represented the whole of the high school (the principal was also the incoming new superintendent). The other districts requested between 65 instruments and 160 per high school and administration. The districts themselves identified the number of instruments which they thought were needed, based on their own identification of who should fill out the instrument.

There were 15 central administrators (4.2% of the total sample), 14 site administrators (4.0% of the total sample), 35 department heads (9.9% of the total sample), 268 teachers (75.7% of the total sample), ten counselors (2.8%), six librarians (1.7%), and five with other classifications (1.4%). One survey did not have a response (0.3%).

Three of the central administrators (21.4%) indicated that they were tenured while one of the site administrators (7.1%) indicated the same. Eight central administrators (57.1%) and eleven site administrators (78.6%) indicated that they had other types of continuance arrangements. Three central administrators (21.4%) and two site ad-
ministrators (14.3%) described themselves as being non-tenured [see Table 13].

Only two of the 35 (5.7%) of the department heads were not tenured [see Table 14]. 55.0% (N=11, one no response) of the counselors, librarians, and educational specialists indicated that they had tenure while 30.0% (N=6) stated that their contracts had another basis for continuance. 15.0% (N=3) of this last group were non-tenured. [see Table 15] Interestingly enough, 19.04% (N=4) of these educational specialists classified themselves as master teachers, 19.04% (N=4) as a teacher, and 23.81% (N=5) as a new teacher [see Table 16]. The rest did not respond to the item.

There were 62.69% (N=168/268) of the teachers who responded were tenured; 37.31% (N=100) were non-tenured [see Table 14].

23.51% (N=63/268, 14 no response) of the teachers classified themselves as master teacher, and 4.48% (N=12) as senior teacher. Most of these responses were clustered in three districts: 60.3% (N=38/63) of the master teachers, 66.67% (N=8) of the senior teachers [see Table 17]. Two of these three districts, however, have 13.16% (N=5/38) of the non-tenured faculty classifying themselves as master teachers, and 8.33% (N=1/12) as a senior teacher, despite the introductory page of the instrument which defines the parameters of the responses in item 3 (see Appendix A).
## Table 13
Profile of the Administrators

<table>
<thead>
<tr>
<th></th>
<th>Central Administrator</th>
<th>Site Administrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Respondents</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>% Tenured</td>
<td>21.4%</td>
<td>7.1% (N=1)</td>
</tr>
<tr>
<td>% Other than</td>
<td>53.3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>Tenure Basis:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Stay in current position:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>46.7%</td>
<td>64.3%</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>33.3%</td>
<td>21.4%</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>13.3% (N=1)</td>
<td>7.1%</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>6.7% (N=1)</td>
<td>7.1%</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time with the School:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>33.3%*</td>
<td>50.0%</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>6.7%</td>
<td>35.7%</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>---</td>
<td>7.1% (N=1)</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>20.0%</td>
<td>7.1%</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>6.7%</td>
<td>---</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>6.7%</td>
<td>---</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>6.7%</td>
<td>---</td>
</tr>
<tr>
<td>Time with the district:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>42.9%</td>
<td>28.6% (N=4)</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>7.1% (N=1)</td>
<td>28.6%</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>---</td>
<td>28.6%</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>28.6%</td>
<td>7.1% (N=1)</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>7.1%</td>
<td>7.1%</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>14.3%</td>
<td>---</td>
</tr>
<tr>
<td>Active in the H.S. Decision Making Process:</td>
<td>Yes (84.6%)</td>
<td>Yes (100.0%)</td>
</tr>
<tr>
<td>Active in the District's Decision Making Process:</td>
<td>Yes (100.0%)</td>
<td>Yes (69.2%^)</td>
</tr>
</tbody>
</table>

* = 3 no responses in this category
^ = 1 no response
^^ = 2 no responses
Table 14
Profiles of Department Heads and Teachers (Including Specialists)

<table>
<thead>
<tr>
<th></th>
<th>Department Heads</th>
<th>Teachers and Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Respondents</td>
<td>35</td>
<td>268 Teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21 Specialists</td>
</tr>
<tr>
<td>% Tenured</td>
<td>93.94% (N=31)</td>
<td>61.94% (N=168) Teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55.0% (N=11) Others</td>
</tr>
<tr>
<td>% Other than Tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basis:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Stay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in current position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>6.06% (N=2)</td>
<td>37.0% (N=120)</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>18.18% (N=6)</td>
<td>17.3% (N=56)</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>6.06%</td>
<td>14.2% (N=46)</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>24.24% (N=8)</td>
<td>10.2% (N=33)</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>21.21% (N=7)</td>
<td>10.5% (N=35)</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>9.09% (N=3)</td>
<td>4.3% (N=14)</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>9.09%</td>
<td>3.7% (N=12)</td>
</tr>
<tr>
<td>28-31 yrs.</td>
<td>3.03% (N=1)</td>
<td>1.2% (N=4)</td>
</tr>
<tr>
<td>31+ yrs.</td>
<td>---</td>
<td>1.2%</td>
</tr>
<tr>
<td>Time with the School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>6.06%</td>
<td>36.7% (N=119)</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>24.24%</td>
<td>18.8% (N=61)</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>12.12% (N=4)</td>
<td>14.8% (N=48)</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>15.15% (N=5)</td>
<td>8.6% (N=28)</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>21.21%</td>
<td>9.9% (N=32)</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>9.09%</td>
<td>5.2% (N=17)</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>12.12%</td>
<td>3.7%</td>
</tr>
<tr>
<td>28-31 yrs.</td>
<td>---</td>
<td>1.2%</td>
</tr>
<tr>
<td>31+ yrs.</td>
<td>---</td>
<td>0.3% (N=1)</td>
</tr>
</tbody>
</table>
Table 14
Profiles of Department Heads and Teachers (Including Specialists) -- continued

<table>
<thead>
<tr>
<th>Time with the district:</th>
<th>Department Heads</th>
<th>Teachers and Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 yrs.</td>
<td>6.06%</td>
<td>32.7% (N=106)</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>24.24%</td>
<td>18.8%</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>9.09%</td>
<td>16.7% (N=54)</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>18.18%</td>
<td>10.2% (N=33)</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>21.21%</td>
<td>10.5% (N=34)</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>9.09%</td>
<td>5.2%</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>9.09%</td>
<td>3.4% (N=11)</td>
</tr>
<tr>
<td>28-31 yrs.</td>
<td>3.03%</td>
<td>1.5% (N=5)</td>
</tr>
<tr>
<td>31+ yrs.</td>
<td>---</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Active in the H.S. Decision Making Process*: Yes (63.64%, N=21) No (40.7%, N=132)

Active in the District's Decision Making Process*: No (21.21%, N=7) No (15.7%, N=273)

Active in the Local Teacher's Association*: No (21.21%, N=7) Yes (51.9%, N=168)

^ = 2 No responses out of 35 respondents.

* = A "No" statement indicates that less than a majority of respondents believe that they are active, parenthesis is based on per cent of yes responses.
Table 15
Profiles of Tenured and Non-Tenured Teachers

<table>
<thead>
<tr>
<th></th>
<th>Tenured^</th>
<th>Non-Tenured^^</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N Respondents 168, 2 no response</td>
<td>100, 5 no response</td>
</tr>
<tr>
<td><strong>Length of Stay</strong></td>
<td><strong>in current</strong></td>
<td><strong>position:</strong></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>6.63% (N=11)</td>
<td>95.79% (N=91)</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>26.51% (N=44)</td>
<td>1.05% (N=1)</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>22.89% (N=38)</td>
<td>2.11% (N=2)</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>13.86% (N=23)</td>
<td>---</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>15.66% (N=26)</td>
<td>---</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>6.63%</td>
<td>---</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>4.22% (N=7)</td>
<td>---</td>
</tr>
<tr>
<td>28-31 yrs.</td>
<td>1.81% (N=3)</td>
<td>---</td>
</tr>
<tr>
<td>31+ yrs.</td>
<td>2.41% (N=4)</td>
<td>---</td>
</tr>
<tr>
<td><strong>Time with the School:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>6.63%</td>
<td>95.79%</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>27.11% (N=45)</td>
<td>2.11%</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>24.70% (N=41)</td>
<td>---</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>12.05% (N=20)</td>
<td>---</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>14.46% (N=24)</td>
<td>---</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>8.43% (N=14)</td>
<td>---</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>4.22%</td>
<td>---</td>
</tr>
<tr>
<td>28-31 yrs.</td>
<td>1.81%</td>
<td>1.05%</td>
</tr>
<tr>
<td>31+ yrs.</td>
<td>0.60% (N=1)</td>
<td>---</td>
</tr>
<tr>
<td><strong>Time with the district:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 yrs.</td>
<td>2.41%</td>
<td>93.68% (N=89)</td>
</tr>
<tr>
<td>4-7 yrs.</td>
<td>27.11%</td>
<td>2.11%</td>
</tr>
<tr>
<td>8-11 yrs.</td>
<td>26.51%</td>
<td>2.11%</td>
</tr>
<tr>
<td>12-15 yrs.</td>
<td>14.46%</td>
<td>---</td>
</tr>
<tr>
<td>16-19 yrs.</td>
<td>15.06% (N=25)</td>
<td>---</td>
</tr>
<tr>
<td>20-23 yrs.</td>
<td>8.43%</td>
<td>---</td>
</tr>
<tr>
<td>24-27 yrs.</td>
<td>4.22%</td>
<td>---</td>
</tr>
<tr>
<td>28-31 yrs.</td>
<td>1.81%</td>
<td>1.05%</td>
</tr>
<tr>
<td>31+ yrs.</td>
<td>0.60%</td>
<td>---</td>
</tr>
</tbody>
</table>
Table 15
Profiles of Tenured and Non-Tenured Teachers -- continued

<table>
<thead>
<tr>
<th></th>
<th>Tenured</th>
<th>Non-Tenured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active in the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S. Decision</td>
<td>No (42.77%, N=71)</td>
<td>No (30.53%, N=29)</td>
</tr>
<tr>
<td>Making Process*:*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active in the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District's</td>
<td>No (18.67%, N=31)</td>
<td>No (10.53%, N=10)</td>
</tr>
<tr>
<td>Decision Making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process*:*:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active in the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Teacher's</td>
<td>Yes (54.82%, N=91)</td>
<td>Yes (50.53%, N=48)</td>
</tr>
<tr>
<td>Association*:*:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^ = Results based on a maximum of 166 responses.

^^ = Results based on a maximum of 95 responses.

* = A "No" statement indicates that less than a majority of respondents believe that they are active, parenthesis is based on per cent of yes responses.
### Table 16

Master Teacher Classification

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Master Teacher</th>
<th>Senior Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Administrator</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Site Administrator</td>
<td>7.1% (N=1)</td>
<td>---</td>
</tr>
<tr>
<td>Department Heads*</td>
<td>43.75% (N=14)</td>
<td>9.34% (N=3)</td>
</tr>
<tr>
<td>Educational Specialists</td>
<td>19.04% (N=4)</td>
<td>---</td>
</tr>
<tr>
<td>Tenured Teachers**</td>
<td>26.54% (N=43)</td>
<td>7.41% (N=12)</td>
</tr>
<tr>
<td>Non-Tenured Teachers</td>
<td>5.26% (N=5)</td>
<td>1.05% (N=1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Teacher^</th>
<th>New Teacher^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Administrator</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Site Administrator</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Department Heads*</td>
<td>43.75% (N=14)</td>
<td>3.13% (N=1)</td>
</tr>
<tr>
<td>Educational Specialists</td>
<td>19.04% (N=4)</td>
<td>23.81% (N=5)</td>
</tr>
<tr>
<td>Tenured Teachers**</td>
<td>63.58% (N=103)</td>
<td>1.23% (N=2)</td>
</tr>
<tr>
<td>Non-Tenured Teachers</td>
<td>31.58% (N=30)</td>
<td>62.11% (N=59)</td>
</tr>
</tbody>
</table>

* = 3 no responses out of 35 respondents.
**= 6 no responses out of 168 respondents.
^ = This answer indicated that the respondent could be part of a "career ladder", or in a district which has no such program in effect [see Appendix A, first page].
Table 17
Master Teacher Responses in Three School Districts

<table>
<thead>
<tr>
<th>Demographic Setting*</th>
<th>District 1^</th>
<th>District 2</th>
<th>District 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of District:</td>
<td>2 H.S.</td>
<td>H.S. only 1 H.S.</td>
<td></td>
</tr>
<tr>
<td>Master Teachers:</td>
<td>13 (18.8%)</td>
<td>12 (14.1%)</td>
<td>13 (34.2%)</td>
</tr>
<tr>
<td>% Non-Tenured:</td>
<td>0.00%</td>
<td>25.0% (N=3)</td>
<td>15.38% (N=2)</td>
</tr>
<tr>
<td>Senior Teachers:</td>
<td>2 (2.9%)</td>
<td>5 (6.2%)</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>% Non-Tenured:</td>
<td>0.00%</td>
<td>20.0% (N=1)</td>
<td>0.00%</td>
</tr>
<tr>
<td>Teachers:</td>
<td>32 (46.4%)</td>
<td>49 (57.6%)</td>
<td>15 (39.5%)</td>
</tr>
<tr>
<td>% Non-Tenured:</td>
<td>15.63% (N=5)</td>
<td>28.57% (N=14)</td>
<td>20.0% (N=3)</td>
</tr>
<tr>
<td>New Teachers:</td>
<td>21 (30.4%)</td>
<td>15 (17.6%)</td>
<td>8 (21.1%)</td>
</tr>
<tr>
<td>% Non-Tenured:</td>
<td>90.48% (N=19)</td>
<td>93.33% (N=14)</td>
<td>100.0% (N=8)</td>
</tr>
</tbody>
</table>

^ = Responses are from only one of the two High Schools in the District.

Only one district has only tenured teachers indicating that they were either master or senior teachers.

The district which saw only tenured individuals describe themselves as either master or senior teachers still showed 20.83% (N=5/24) of the non-tenured teachers describing themselves as being teachers rather than new teachers. The other two districts with a high cluster of master and senior teachers responses saw 14 out of 32 and 3 out of 13 of their non-tenured group describe themselves as teachers, for an overall average of 37.78%. The aggregate for the remaining districts was 30.77% (N=8/26) [see Table 16].

Most of the department heads indicated that they were either master teachers (43.75%, N=14/32, 3 no response) or senior teachers (9.34%, N=3). One department head (3.13%), however, put himself or herself as a new teacher. Ten of the master teachers and all three of the senior teachers came from the three school districts already mentioned.

Of all the respondents, 38.5% (N=136/354) have been in their present position for no more than three years. Also, 18.1% (N=64) had been in the same position between four and seven years, 13.3% (N=47) between eight and eleven years, 10.2% (N=36) between twelve and fifteen years, and 9.9% (N=35) between sixteen and nineteen years.

Of the fifteen central administrators, 46.7% (N=7) indicated that they had been at their present position up to
three years while 33.3% (N=5) stated that they had been in their position between four and seven years. A third (N=5, three no responses) have been with the school for up to three years, and 42.9% (N=6, one no response) have been with the district the same length of time.

Twenty per cent (N=3) of the central administrators indicated that they had been with the school twelve to fifteen years while 26.7% (N=4) said that they had been with the district the same amount of time.

The longest amount of time for a central administrator in the same position was between sixteen and nineteen years by one individual (6.7%). However, one central administrator wrote that he had been with the school between twenty and twenty three years, and a second indicated between twenty four and twenty seven years. 13.3% (N=2) of the central administrators stated that they had been with the district between twenty and twenty three years.

Nine (64.3%) of the site administrators stated that they had been in their current post between zero and three years. Three had been in their position between four and seven years. One (7.1%) indicated a length of time between eight and eleven years, and a second site administrator (7.1%) had been in the same job between twelve and fifteen years. Half (N=7) of the site administrators indicated that they had been with their school between zero and three years.
while 28.6% (N=4) stated that they had been with the district for the same amount of time.

Over a third, 35.7% (N=5), of the site administrators had been with their school between four and seven years, 7.1% (N=1) between eight and eleven years, and 7.1% (N=1) between twelve and fifteen years. Four (28.6%) of the site administrators had been with the district between four and seven years, 28.6% (N=4) indicated that they had been associated with the district between eight and eleven years. One said that they had been around between twelve and fifteen years, and another admitted to being around between sixteen and nineteen years.

Only two the department heads (5.88%) indicated that they had been in their position no more than three years. The rest indicated that they had been in their high school and in their current position from four to seven years (27.27%, N=9/33, two no response), 9.10% (N=3) from eight to eleven years, 21.21% (N=7) from twelve to fifteen years, 21.21% (N=7) from sixteen to nineteen years, 9.10% (N=3) from twenty to twenty three years, 9.10% (N=3) from twenty four to twenty seven years, and 3.03% (N=1) from twenty eight to thirty one years. The spread was similar (+1 in a couple of instances) for the amount of time spent with the district.

Of the teachers, 37.2% (N=120) indicated that they had been in their present position no more than three years,
96.81% (N=91/95, five no response) being non-tenured. Two non-tenured teachers (2.13%) said that they had been with the high school between four and seven years, and three (3.19%) stated that they had been around the high school between eight and eleven years.

Eleven (6.55%, N=11/168, 4 no response) of those teachers who indicated that they had been at their present position no more than three years were tenured; 26.19% (N=44) of the tenured teachers have been at their position between four and seven years while 24.40% (N=41) have been in the same position between eight and eleven years. Twenty three (13.70%) stated that they have been in their current position from twelve to fifteen years, 16.07% (N=27) from sixteen to nineteen years, 6.55% (N=11) from twenty to twenty three years, 1.79% (N=3) from twenty four to twenty seven years, 0.60% (N=1) from twenty eight to thirty one years, and 1.79% (N=3) for more than thirty one years.

One school district, located at a small urban center, has 28.30% (N=15/53) of its tenured faculty who have been in their current position for more than twenty years. A second district, which can be described as being rural, has 50.0% (N=4) of its tenured faculty who have been at the same job for more than twenty years. This same group of teachers had been in the district for the same amount of time.

Eleven (6.55%) of the tenured faculty had been at their school three years or less. Less than a third, 26.79%
(N=45), have been with their current school from four to seven years. Forty one (24.40%) have been with the same high school from eight to eleven years. Twenty (11.90%) indicated that they have been at the same high school between twelve to fifteen years. Twenty five (14.88%) have not moved to another site from sixteen to nineteen years. Fourteen (8.33%) have remained from twenty to twenty three years, 4.20% (N=7) from twenty four to twenty seven years, 1.79% (N=3) from twenty eight to thirty one years, and 0.60% (N=1) has been around for more than thirty one years.

The amount of time that tenured teachers have been associated with the district shifted only slightly. In four districts there was no variation at all. In one district, the change was that one of the tenured teachers who indicated being in the school less than three years has been associated with the district for at least four years. In a second district, the shift indicated is that two of the tenured teachers who had been at the high school between eight and eleven years had been with the district longer. At a third district, three of the tenured teachers who indicated that they had been at the high school for no more than three years have been associated with the district for a longer period of time, two stating that they have been with the district between eight and eleven years, and the third individual saying that he or she has been with the district between twelve and fifteen years.
Findings

I. Active Participation

Items 7 and 8 indicate that central administrators believed themselves to be active in the high school's decision making process as well as wholly involved at the district's decision making machina [see Table 13]. Site administrators also felt that they are active at the district level while being completely involved with their high school's decision making activity. Department heads indicated that they saw themselves as being active participants in the decision making process at their high school, but not at the district level [see Table 14].

However, these views contrast with how teachers) and educational specialists see their participation [see table 15]. For the most part, the teachers and specialists see themselves without active participation at the high school and almost none at the district level.

7. Do you consider yourself an active participant in the school's decision making process?

Eleven (84.6%) of the central administrators, 100.0% of the site administrators (N=14), and 60.0% (N=21) of the department heads indicated that they were active participants at the high school while 61.59% of the teachers and educational specialists (N=157) indicated that they considered themselves active participants.
8. Do you consider yourself an active participant in the district's decision making process?

All of the central administrators (N=15) and 69.2% of the site administrators (N=9) indicated that they considered themselves active participants in the district's decision making process. Only 14.53% of the teachers and educational specialists (N=21) and 25.71% (N=7) of the department heads indicated that they did not feel that they were active.

II. Ties Between Administration and the Teacher Association

With the exception of one site administrator, there were no administrators who saw themselves as being active in the local teacher's association. A majority of the department heads concurred that close ties were necessary. On the other hand, there is a strong belief that the teacher's association should have close ties with the administrative teams that are in place.

9. Do you believe in close ties between the administration and the teacher's association?

Fourteen out of the fifteen central administrators (N=14), 85.7% of the site administrators (N=12), 71.43% (N=25) of the department heads, and 85.47% of the teachers and specialists (N=247) believe that there should be close ties between the teachers association and the administrative teams.
10. Are you active in the local teacher's association?

None of the central administrators, and only one of the site administrators (7.1%) indicated that they were active participants; 42.86% (N=15) of the department heads and 52.94% of the teachers and specialists (N=153) stated that they are active in the local teacher's association [see Tables 14-16].

III. Acquaintance with Q-C model or associated models

Sixty per cent (N=9) of the central administrators have heard of Quality Circles while 100.0% (N=14) of the site administrators have heard of them [item 11]. This compares to only 25.71% (N=9) of the department heads and 17.65% (N=51) of the teachers and specialists who indicated that they had heard about Q-Cs [see Figure 4-1].

Of the other three models, the respondents were the most familiar with Management by Objectives [item 14]. Again, 93.3% (N=14) of the central administrators, 92.9% (N=13) of the site administrators, 88.57% (N=31) of the department heads, and 60.55% (N=175) of the teachers and specialists have heard of MBO.

Total Quality Control (TQC) [item 12] was known only to 35.7% (N=5) of the central administrators, 35.7% (N=5) of the site administrators, 8.57% (N=3) of the department heads, and 8.30% (N=24) of the teachers and specialists. Six (42.9%) of the central administrators, 42.9% (N=6) of the site administrators, 8.3% (N=3) of the department heads,
Figure 4-1: Respondent's Knowledge of Q-Cs and Related Models
and 12.80% (N=37) of the teachers and specialists had heard of Quality of Work Life (QWL) [item 13].

IV. Official Decision Making Policy in Place

The two major responses were [e] none and [d] Management by Objectives, in this order. At the school district [item 15], 46.2% (N=6) of the central administrators and 50.0% (N=7) indicated that there was no official policy in place. Sixty per cent (N=21) of the department heads and 58.48% (N=169) of the teachers and specialists agreed. Five (38.5%) of the central administrators, 50.0% (N=7) of the site administrators, 25.71% (N=9) of the department heads, and 25.95% (N=75) of the teachers and administrators believed that MBO is the official decision making approach to policy in place in their district [see Figures 4-2, 4-3, 4-4].

At the high school [item 16], 26.7% (N=4) central administrators felt that there was no official policy in place, and 13.3% (N=2) thought that MBO was the official policy at the high school. However, nine (60.0%) of the central administrators declined to answer the item.

Six (42.9%) of the site administrators indicated that there was no official policy in place while 21.4% (N=3) stated that an MBO format was in place. However, as with the central administrators above, five site administrators (35.7%) declined to answer this item [16].
MBO and Quality Control at the High School

Figure 4-2: MBO and Quality Control at the High School
MBO and Quality Control in the District

Figure 4-3: MBO and Quality Control in the District
MBO as Official Policy
H.S. and District

Figure 4-4: MBO as Official Policy
High School and District
Of the department heads, 48.57% (N=17), along with 60.55% (N=175) of those teachers and specialists who chose to respond, indicated that there was no one official policy in place at the high school. Ten (28.57%) of the department heads and 21.80% (N=63) of the teachers and specialists thought that MBO was the official policy. Only eleven (3.8%) of the teachers, department heads and administrators who responded believed that Quality Circles were the stated official policy while 3.11% (N=11) thought that Total Quality Control (TQC) was the official policy for their high school.

When asked if the district had another approach to management (ie., model) [item 17], 46.7% (N=7) of the central administrators indicated no while 6.7% (N=1) indicated that there was. However, 46.7% of the central administrators chose not to answer. The eleven site administrators (there were three who chose not to respond) indicated that there was no other management model in place for the district; 68.57% (N=24, four no response) of the department heads, and 76.82% (N=222, 61 no response) of the teachers and specialists concurred as well.

At the high school [item 18], 33.3% (N=5, 9 no response) of the central administrators, 100.0% (N=9, 5 no response) of the site administrators, 60.0% (N=21, 7 no response) of the department heads, and 74.39% (N=215, 73 no response) of the teachers and specialists indicated that
their high school did not have another managerial model in place.

V. An Official Quality Control Mechanism

Central administrators were divided as to where issues of quality control are officially addressed at the high school. Site administrators also had mixed views, tending to say that there were no official quality control mechanisms in place (42.9%). At the district level, central administrators tended to indicate that there was no official quality control system in place (40.0%) with site administrators agreeing with them (61.5%). Teachers and specialists indicated that neither the high school or the district had official quality control mechanisms in place [see Figures 4-2 and 4-3].

19. Is there an official decision making system in your high school which specifically deals with the concepts of "quality control"?

Seven (46.7%) of the central administrators declined to answer this item. Of those that responded, 20.0% (N=3) indicated that there was no official quality control system in place while 20.0% (N=3) stated that these existed for both, curricular and administrative matters [see Figure 4-4].

Site administrators, on the other hand were less divided. Overall, 54.5% of those who responded (N=6, three no response) indicated that there was no official quality
control system in place. Only 18.2% (N=2) of those site administrators who responded to the item stated that there was an official quality control system in place at both the curricular and administrative levels. None of the site administrators indicated that there was an official quality control system just for curricular matters.

Over two-thirds (71.3%) of the department heads, teachers and specialists who responded (N=208, 32 no responses) indicated that there was no official quality control mechanism in place at their high school. Only 13.4% (N=39) thought that their high school had official quality control mechanisms for both, curricular and administrative matters while 9.9% (N=29) stated that their high school only had an official quality control system in place for curricular matters while 5.5% (N=16) indicated that an official quality control system was in place only for administrative matters.

20. Is there an official decision making system in your district which specifically deals with the concepts of "quality control"?

Half of the central administrators who responded (N=6, three no response) indicated that there was no official quality control system in place at the district. One-third (N=4) stated that these were in place for curricular and administrative matters. One thought that the district had an official quality control system in place for only
curricular matters, and another thought that it was in place for only administrative matters [see Figure 4-4].

Almost two-thirds (61.5%) of the site administrators who responded (N=8, one no response) stated that there was no official quality control mechanism in place at their district. Three (23.1%) indicated that an official system was in place for both, curricular and administrative matters. Two thought that this system was only in place for management while none believed that quality control was officially addressed for curricular matters.

Of the department heads, teachers and specialists who responded, 73.7% (N=215, 32 no responses) thought that there was no official quality control system in place in their school districts. Thirty six (12.3%) indicated that the opposite was the case, that official systems existed for both, curricular and administrative matters. Twenty one (7.2%) thought that there was an official system in place for curricular matters only while twenty (6.8%) stated that there was an official quality control system in place only for administrative matters.

VI. Presentations on Quality Circles

An essential element in the development of Q-Cs is the preparation of presentations about Quality Circles for all levels of an institution. Also as important is the proper advertising of these presentation [see Figure 4-5].
Q-C Preparation Activities

% Responding Yes

Item #

- Central Admin.
- Site Admin.
- Dept. Head
- Teachers and Specialists

* - Dept. Heads added to teachers and Specialists

Figure 4-5: Q-C Preparation Activities
Again, almost two-thirds (61.5%) of the central administrators who responded (N=8, two no response) indicated that there were no presentations on Q-Cs by their district [item 21]. Four (30.8%) stated that they did not know. Only one believed that there had been a presentation on Q-Cs by their district. Also, almost two-thirds (64.3%, N=9) of the site administrators indicated that the district had not made a presentation while 28.6% (N=4) did not know. Only 7.1% (N=1) stated that the district had made a presentation on Quality Circles.

Over two-thirds, 72.73% (N=24, two no response), of the department heads who responded to item 21, and 51.56% of the teachers and specialists who responded (N=149, 13 no response) indicated that the district did not have presentations presenting Quality Circles. Almost half, 42.91% (N=124) of those teachers and specialists who responded stated that they did not know. Only 1.5% (N=5) thought that the district had given presentations on Q-C application. No department head indicated that there had been a presentation made by the district.

At the high school [item 22], 76.9% of the central administrators who responded (N=10, two no response) did not know whether or not there had been presentations on Quality Circles. Three of those who responded stated that the high school had not given any presentation on Q-Cs. The site administrators who responded (three no response) were evenly
divided, with 45.5% (N=5) saying that there were no presentations and 45.5% indicating that they did not know.

Sixty five per cent (N=206, seven no response) of the department heads, teachers and specialists indicated that there had been no presentations given at their high school, 33.4% (N=106) of them said that they did not know. Only five (1.5%), one being a department head, stated that there had been presentations on Quality Circles at their high school.

VII. Training in Problem Solving

Nine (60.0%) of the central administrators indicated that they had been trained in problem solving [item 23]. So did 50.0% (N=7) of the site administrators. This contrasts with 69.7% (N=23, two no response) of the department heads who responded, and 82.01% (N=237, ten no response) of the teachers and specialists who said that they were not trained in problem solving techniques [see Figure 4-5].

VIII. Training in Interpersonal Communication Skills

Two-thirds (N=10) of the central administrators and 57.1% (N=8) of the site administrators indicated that they had been trained in interpersonal communication skills [item 24]. However, 78.3% (N=242, 11 no response, two other responses) of the department heads, teachers and specialists, on the other hand, indicated that they had not been trained in these skills [see Figure 4-5].
IX. Coordination of Committee Related Activity

Eight (53.3%) of the central administrators stated that there was no coordinator for committee related activities for the district [item 25]. Three did not know. Only 26.7% (N=4) of the central administrators indicated that their district had a coordinator at the district level for committee related activities [see Figure 4-5]. As to whether or not their high school also had a coordinator [item 26], 69.2% (N=9, two no response) of the central administrators who responded did not know. Of the other four respondents, they were equally divided (15.4%) between yes, their high school had a coordinator and no, theirs did not [see Figure 4-5].

Eight (57.1%, one no response) of the central administrators stated that there was no in-service office which would support committee related activities [item 27]. Three (21.4%) indicated that their in-service office did support committee related activities while 14.3% (N=2) did not. One central administrator did not know whether or not the in-service office could support committee related activities.

In contrast, only 42.9% (N=6) of the site administrators indicated that their district did not have a coordinator. Indeed, 50.0% (N=7) thought that there was a district coordinator. Only one site administrator did not know whether or not the district had a coordinator.
As to whether or not the high school had a coordinator for committee related activities, 45.5% (N=5, three no response) of the site administrators who responded did not know. Three thought that their high school did not have such a person, while another three believed that their high school did have such an entity. However, 57.1% (N=8) believed that the in-service support function in place at their high school was supportive of committee related activities. Three indicated that their high school did not have an in-service office, and two did not know. Only one site administrator believed that the in-service office did not support committee related activity.

Teachers and specialists who responded indicated that, for the most part, they did not know if the district had a coordinator for committee related activities (43.6%, N=139, 5 no responses). Almost one-third (30.1%, N=96) of the teachers and specialists, however, stated that the district had no such coordinator. Only 26.3% (N=84) of those who responded believed that the district had a coordinator for committee related activities.

Over a third (37.9%, N=120, seven no response) of the department heads, teachers and specialists who responded to item 26 said that they did not know if the high school had a coordinator for committee related activities. Only 31.9% (N=101) said that their high school did not while 30.3% (N=96) indicated that there was such a person.
Over a third (34.7%, N=111, four no response) of the department heads, teachers and specialists indicated that there was no in-service office [item 27]. Of those who indicated that there was an in-service office, 27.27% (N=9) of the department heads, as compared to 34.6% (N=100) of the teachers and specialists, did not know whether or not it supported committee related activity. Ten (30.30%) of the department heads and 14.53% (N=42) of the teachers and specialists felt that the office did not support committee related activity while 9.01% (N=3) of the department heads and 5.19% (N=45) of the teachers and specialists believed that it did [see Figure 4-5].

Again, over one-third (38.92%, N=65/167) of the tenured teachers stated that there was no in-service office, compared to 22.83% (N=21/92, three no response) of the non-tenured teachers who agreed. Not surprisingly, 52.17% (N=48) of the non-tenured teachers did not know whether or not the in-service office provided support for committee activities; 25.75% (N=43) of the tenured teachers did not know. Only 18.56% (N=31) of the tenured teachers and 11.96% (N=11) of the non-tenured teachers believed that their in-service office did provide support.

X. Public Recognition of Committee Activities

Eleven of the central administrators who responded (one did not) and 76.9% (N=10, one no response) of the site administrators indicated that committee activities were
publicly recognized [item 28]. [see Figure 4-6] Over two-thirds (69.2%, N=9, two no response) of the central administrators who responded and 61.5% (N=8, 1 no response) of the site administrators who responded believe that recognition is given in many of the avenues available for public response [item 29]. Two of the central administrators believe that recognition is given through the local high school newspaper while another two believe that recognition is given through the district newsletter. Three of the site administrators, however, felt that recognition came from sources other than those specified in item 29.

Only two of the site administrators feel that there is no public recognition given at all.

Department heads, teachers and specialists, on the other hand, tended to view being given recognition as occurring only on occasions [see Figure 4-5]. Over half (56.25%, N=18, three no response) of the department heads and 47.37% (N=126, 23 no response) of the teachers and specialists who responded to item 28, indicated that recognition came only sometimes. Just over one-third (34.34%, N=11) of the department heads and 32.71%, (N=87) of the teachers and specialists, however, felt that they did receive recognition for their committee related activities. Only three (9.38%) of the department heads and 21.05% (N=56) of the teachers and specialists indicated that they received no recognition.
Reputation for High Standards
% of Respondents in Agreement

![Pie charts showing reputation for high standards by role and level.]

Figure 4-6: Reputation for High Standards
Recognition, when it is there, came from sources other than those listed on item 29 (46.2%, N=126, 51 no response). One-fifth (N=55) of the department heads, teachers, and specialists who responded, indicated that recognition came in the form of school board meetings and/or other sources such as the local high school newspaper and the district newsletter. Another one-fifth (N=54) felt that recognition was given through the district newsletter.

XI. Flexibility to Encourage Innovation

Eleven of the central administrators thought that the administration which was in place is flexible enough to encourage innovation [item 30]. Three were inclined to agree, while one neither agreed or disagreed [see Figure 4-7].

Six of the site administrators thought that the administration which was in place is flexible enough to encourage innovation. Over one-third (35.7%, N=5) was inclined to agree. Two neither agreed or disagreed, and only one inclined to disagree.

Twenty three per cent (N=73, six no response) of the department heads, teachers, and specialists who responded, indicated that the administration which was in place is flexible enough to encourage innovation. Less than a third (30.5%, N=97) was inclined to agree.

Ten (30.30%) of the department heads and 19.79% (N=56) of the teachers and specialists, on the other hand,
Flexibility and Trust

% Agreeing

Figure 4-7: Flexibility and Trust
definitely disagreed with the statement that the administration was flexible and encouraged innovation. No department heads were inclined to disagree while 18.37% (N=52) inclined to disagree with the premise of item 30 as well. Only 8.83% (N=25) of the teachers and specialists who responded and 15.15% (N=5) of the department heads stated that they neither agreed or disagreed.

XII. Reputation for High Standards

More of the administrators indicated that their district was noted for high standards than the high school (which they also noted had a reputation for high standards). Department heads were mixed, giving some recognition to their high school for standards. Teachers and specialists, as a group, tended to state that they did not see either the high school or the district as enjoying a reputation for high standards [see Figure 4-6].

31. Our High School has a Reputation for High Standards

Two of the central administrators who responded (one chose not to respond) inclined to disagree, indicating that their high school may have some shortcomings. One site administrator was of the same mind.

Forty (13.89%, N=40, one no response) of the teachers and specialists stated that they strongly disagreed with the statement, believing that their high school did not have a
reputation for high standards. One-fourth (25.1%, N=81) inclined to disagree with item 31.

Three of the central administrators believed that their high school does have a reputation for high standards. Three (27.3%) of the site administrators who responded to the item are of the same mind as were eight (24.24%) of the department heads. Six of the central administrators, 36.4% (N=4) of the site administrators who responded, and 27.27% (N=9) of the department heads inclined to agree. Fifty one (17.71%) of the teachers and specialists indicated that they agreed with the statement while 26.9% (N=87) was inclined to agree.

Three of the central administrators, three of the site administrators, and 53 (16.4%) of the department heads, teachers, and specialists who responded to the item, neither agreed or disagreed.

32. Our District has a Reputation for High Standards

Of the administrative group, only one site administrator was inclined to disagree with the statement. Instead, four of the central administrators and five of the site administrators definitely agreed that their district had a reputation for high standards. Seven of the central administrators and seven of the site administrators were inclined to agree. Four of the central administrators and one of the site administrators neither agreed or disagreed with the statement.
In contrast, 15.09% (N=43, four no response) of the teachers definitely disagreed with the statement, indicating that they thought that their district did not have a reputation for high standards. And 24.21% (N=69) were inclined to disagree.

Yet, 17.54% (N=50) of the teachers and specialists indicated that they definitely agreed with the statement, and 24.21% (N=69) were inclined to agree. One-fifth (N=57) neither agreed or disagreed.

One-quarter (N=8, one no response) of the department heads who responded, indicated that they definitely agreed with the statement, with 18.75% (N=6) inclined to agree. Two definitely disagreed, ten (31.23) were inclined to disagree, and six (18.75%) neither agreed or disagreed.

XIII. Administrative Trust of Teacher Judgment

Of the administrators, only two site administrators were inclined to disagree with the statement that "our administration trusts the individual judgement of our teachers" [item 33] This compares to 21.8% (N=70, three no response) of the teachers and specialists who definitely disagreed and 31.2% (N=100) who were inclined to disagree.

Seven of the central administrators indicated that they definitely agreed with the statement. Seven of the central administrators were inclined to agree. Two of the site administrators definitely agreed while nine (64.3%) were inclined to agree.
Forty one (14.19%) of the teachers and specialists definitely agreed. Almost a third (32.18%, N=93) were inclined to agree. Forty (13.84%) neither agreed or disagreed.

Department heads were more divided. Six (18.18%, two no response) definitely agreed, and seven (21.21%) were inclined to agree. Meanwhile, nine (27.27%) definitely disagreed and six (18.18%) were inclined to disagree. Five neither agreed or disagreed.

**XIV. Voluntarism**

All of the central administrators definitely agreed. Ten (71.4%) of the site administrators definitely agreed with the statement [item 34] while three were inclined to agree. Two-thirds (N=22, two no response) of the department heads definitely agreed while 28.13% (N=9) were inclined to agree.

Over half (52.63%, N=150, four no response) of the teachers and specialists definitely agreed, feeling that they had the ability to volunteer to join committees. One-quarter (24.91%, N=71) were inclined to agree. Only 7.37% (N=21) definitely disagreed while 4.7% (N=15) were inclined to disagree. Of the respondents, 9.1% (N=29) expressed that they neither agreed or disagreed. Almost half (49.6%, N=46, two no response) of the non-tenured teachers definitely agreed with the statement while 27.96% (N=26) were inclined to agree. In comparison, 54.22% (N=90, one no
response) of the tenured teachers indicated that the definitely agreed that they could volunteer for committees, with another 24.10% (N=40) stating that they inclined to agree.

XV. The Nature of Committees

Two of the central administrators definitely agreed while ten were inclined to agree that committees at the district level were ad-hoc in nature [item 35]. Two were inclined to disagree, one neither agreed or disagreed. Only one of the site administrators definitely agree while nine (64.3%) were inclined to agree. Four neither agreed or disagreed. Nine (27.27%, N=9, two no response) of the department heads definitely agreed while 36.36% (N=12) were inclined to agree. Eight neither agreed or disagreed [see Figure 4-8].

Fifty four (19.29%, N=54, nine no response) of the teachers and specialists definitely agreed with the statement that district level committees were ad-hoc in nature. One-third (33.57%, N=94) was inclined to agree.

Only 7.5% (N=21) of the teachers and specialists definitely disagreed with the statement while 11.01% (N=31) were inclined to disagree. Close to one-third (30.2%) of those who responded who were either department heads, teachers, or specialists, expressed that they neither agreed or disagreed.
Ad-Hoc Nature of Committees at H.S. and District

% Respondents in Agreement

<table>
<thead>
<tr>
<th></th>
<th>District</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cent.</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Admin.</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Site Admin.</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Dept. Heads</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Teachers</td>
<td>80%</td>
<td>80%</td>
</tr>
</tbody>
</table>

■ Definitely Agreed  □ Inclined to Agree

Figure 4-8: Ad-Hoc Nature of Committees
At the high school, 46.7% (N=7) of the central administrators were inclined to agree that they thought that committee activity was ad-hoc in nature [item 36]. Only one administrator was inclined to disagree. Three neither agreed or disagreed and four did not respond to the item. One site administrator definitely agreed with the statement while almost half (N=6) were inclined to agree. Three neither agreed or disagreed, and four chose not to respond [see Figure 4-8].

Over a fourth (27.27%, N=9, two no response) of the department heads definitely felt that their high school committees were ad-hoc in nature while 36.36% (N=12) was inclined to agree. Forty nine (17.31%, six no response) of the teachers and specialists stated that they definitely agreed that their high school's committees were ad-hoc in nature. Just over a third (34.28%, N=97) were inclined to agree.

Nineteen (6.71%) and 35 (12.37%) of the teachers and specialists definitely disagreed or were inclined to disagree, respectively. Under a third (30.04%, N=85) stated that they neither agreed or disagreed. Three (9.09%) of the department heads definitely disagreed while another one was inclined to disagree. Eight (24.24%) of the department heads expressed that they neither agreed or disagreed with the statement in item 36.
Five of the central administrators who responded (one did not) and four of the site administrators indicated that they definitely agreed with the statement that they served on standing committees [item 37]. One of the central administrators and five of the site administrators were inclined to agree. Four of the central administrators neither agreed or disagreed. One of the site administrators neither agreed or disagreed.

Two of the central administrators definitely disagreed while the same number were inclined to disagree. Four of the site administrators were inclined to disagree with the statement, indicating that not all of their committee activity was standing in nature.

Four (12.12%, two no response) of the department heads either definitely disagreed or were inclined to disagree that they served on standing committees. One-third (N=11) definitely agreed that they did serve on standing committees, and 27.27% (N=9) were inclined to agree. Five indicated that they neither agreed or disagreed with the statement.

Close to one-third (30.36%, N=85, nine no response) of the teachers and specialists who responded to the item definitely disagreed with the statement while 19.29% (N=54) were inclined to disagree, indicating that their committee activity was not all of a standing nature. Only 8.93% (N=25) and 14.64% (N=41) stated that they definitely agreed
with the statement or were inclined to agree, respectively. One fourth (N=70) neither agreed or disagreed.

XVI. Task-Orientation of Committee Activity

Eight of the central administrators definitely agreed with the statement that committee activity was task-oriented [item 38]. Five of the site administrators were of like mind. Five of the central administrators and eight of the site administrators were inclined to agree. One site administrator expressed neither agreement or disagreement. One central administrator expressed definite disagreement while another one was inclined to disagree.

Four (12.12%, two no response) of the department heads definitely agreed that their committee activity was task-oriented. Eighteen (54.55%) were inclined to agree with the statement. Seven definitely disagreed while two of the department heads were inclined to disagree.

Forty one (14.67%, ten no response) of the teachers and specialists who answered the item definitely agreed with the statement while 85 (30.47%) were inclined to agree. Over one-third (36.92%, N=103) expressed that they neither agreed or disagreed. Twenty seven (9.68%) definitely disagreed while 26 (9.32%) were inclined to disagree.

XVII. Selection of Solvable Problems

Eight of the central administrators and three of the site administrators definitely agreed with the statement that in "most of the committees in which I have served
select problems that we can do something about" [item 39]. Six of the central administrators and eight of the site administrators were inclined to agree. One central administrator indicated neither agreement or disagreement while three of the site administrators were of like mind [see Figure 4-9].

Four of the central administrators definitely agreed that the problems were stated clearly [item 40]. Ten were inclined to agree. Only one site administrator definitely agreed while eleven (78.6%) were inclined to disagree. One central administrator and two site administrators indicated that they neither agreed or disagreed.

Four (12.12%, two no response) and 17 (51.52%) of the department heads definitely agreed or were inclined to agree (in this order) that their committees selected problems which they could decide upon [see Figure 4-9]. Seven definitely disagreed with the statement while two were inclined to agree. Three (9.09%) neither agreed or disagreed.

Thirty two (11.47%, ten no response) of the teachers and specialists indicated that they definitely agreed while 36.20% (N=101) were inclined to agree with the view that committees selected problems which they could do something about. Almost a third (32.26%, N=90) expressed that they neither agreed or disagreed. Thirty (10.75%) definitely disagreed while 9.68% (N=27) were inclined to disagree.
Items 39, 40, 41, 42
% Respondents in Agreement

Figure 4-9: Responses to Items 39, 40, 41, 42
Three (9.09%, two no response) of the department heads said that they definitely agreed with the sentiment in item 40; 51.52% (N=17) were inclined to agree. Four stated that they definitely disagreed while the same number were inclined to disagree. Five put themselves on record as neither agreeing or disagreeing.

Ten per cent (N=28, nine no response) and 38.93% (N=109) of the teachers and specialists indicated that they definitely agreed or were inclined to agree that the committees in which they served stated the problem clearly, respectively. Close to a third (30.0%, N=84) neither agreed or disagreed. Only 12.5% (N=35) definitely disagreed while 9.29% (N=26) were inclined to disagree with the view.

XVIII. Facing the Facts Realistically

Six of the central administrators definitely agreed that committee activity faced the "hard facts" realistically rather than just being nice to each other [item 41]. Three of the site administrators definitely agreed as well. Five of the central administrators and eight of the site administrators were inclined to agree. Three of the central administrators indicated that they neither agreed or disagreed. Three of the site administrators expressed the same feeling. One central administrator inclined to disagree [see Figure 4-9].
Thirty six (11.4%, seven no response) of the department heads, teachers, and specialists definitely agreed with the statement while 37.2% (N=118) were inclined to agree. Over one fourth (27.8%, N=88) neither agreed or disagreed. Thirty two (10.1%) definitely disagreed. Forty three (13.6%) were inclined to disagree.

**XIX. Reliance on Participant's Role**

Four of the central administrators (one did not respond) definitely agreed with the notion that "in resolving conflicts, most of the committees... rely on the participant's role in the organization" [item 42]. Six were inclined to disagree. Three neither agreed or disagreed while one central administrator definitely disagreed with the statement [see Figure 4-10].

Ten of the site administrators were inclined to agree. Four expressed that they neither agreed or disagreed with this point-of-view. Five (15.15%, two no response) of the department heads definitely agreed that role played an important part in resolving conflict within the committee. Fifteen (45.45%) of the department heads were inclined to agree. Only two department heads definitely disagreed while five were inclined to disagree. Six expressed neither agreement or disagreement.

Seventeen (6.09%, ten no response) of the teachers, regardless of tenure, and specialists definitely agreed that
Items 39, 42
Comparison of Responses

Figure 4-10: Comparison of Items 39 and 42
the participant's role was relied upon while 33.33% (N=93) were inclined to agree. Close to half (44.09%, N=123) neither agreed or disagreed.

Twenty seven (9.68%) of the teachers and specialists definitely disagreed. Twenty one were inclined to disagree.

**XX. Where Decisions are Made**

Four of the central administrators (one no response) and two of the site administrators definitely disagreed with the statement in item 43 which said that "in most of the committees in which I have served, decisions are made by referring the issue to another committee or administrative superiors." Eight of the central administrators were inclined to disagree as were six of the site administrators.

Two of the central administrators and four neither agreed or disagreed. Two of the site administrators, however, indicated that they were inclined to agree that "decisions are made by referring the issue to another committee or administrative superiors."

Thirty two (10.2%, 11 no response) of the department heads, teachers, and specialists definitely disagreed while 28.1% (N=88) were inclined to disagree. Over one-third, 34.8% (N=109), expressed that they neither agreed or disagreed.

Twenty six (8.3%) of the department heads, teachers, and specialists, however, definitely agreed with the statement; 18.5% (N=58) were inclined to agree.
XXI. Use of Written Guidelines

Four of the central administrators (one no response) definitely agree while three were inclined to agree [item 44]. Three neither agreed or disagreed. One central administrator definitely disagreed while three were inclined to disagree.

Almost half (42.9%, N=6) of the site administrators, in contrast, indicated that they inclined to disagree. Five neither agreed or disagreed. Only one site administrator definitely agreed while two were inclined to agree.

Department heads, although spread in their responses, generally indicated disagreement: 28.13% (N=9, three no response) definitely disagreed with the statement, 28.13% (N=9) were inclined to disagree, and 28.13% (N=9) expressed that they neither agreed or disagreed. Only 15.63% (N=5) said that they were inclined to agree.

Almost one-fifth (19.78%, N=53/268, 21 no response) of the teachers and specialists who responded to item 44 definitely disagreed while 28.73% (N=77) were inclined to disagree. Over one-third (34.33%, N=92) neither agreed or disagreed. Only 4.0% (N=12) of the teachers and specialists agreed that they had written guidelines and policies while 13.81% (N=37) were inclined to agree. Of those who were non-tenured teachers (most of whom have not been at their school for more than three years) 19.32% (N=17, seven no response) definitely disagreed, 23.86% (N=21) were inclined
to agree, 43.18% neither agreed or disagreed, 9.09% (N=8) were inclined to agree, and only 4.55% (N=4) definitely agreed that they were given guidelines and established policy helping them for their committee activity.

**Statistical Significance**

The .05 level of significance was used to determine which correlations were significant on items 30 through 44 [see Table 18]. Although considered, a factor analysis of the same items was not justified.

Item 30 showed a moderate relationship with item 40 (r = .5288). A strong relationship was indicated between item 30 and item 39 (r = .5933), item 32 (r = .6088), and item 31 (r = .6359). A very strong relationship was present between item 30 and item 33 (r = .7590).

Item 31 showed strong relationships with items 30 and item 33 (r = .6467). However, item 31 had a very strong correlation with item 32 (r = .9487).

Item 32 had a strong relationship with items 30 and 33 (r = .6418) as well as its very high correlation to item 31. As noted, item 33 indicated a strong relationship with items 30, 31, and 32. Item 35 and item 36 demonstrated a very high degree of correlation (r = .8842) with each other.

Item 39 showed a very strong relationship to item 40 (r = .7682), and strong relationships with item 41 (r = .6118) and item 42 (r = .6531).
Aggregate Responses

Thirty four out of 354 respondents, 9.60%, identified an environment which could be described as having some of the elements for the presence of Quality Circles [see Table 19]. In one of the high schools in a two high school urban district, 18.29% (N=15/82) of the respondents scored at least a 71. In the aggregate scoring, 71 indicates the minimal response to the items on the questionnaire when these are weighted in to reflect appropriate responses [see Appendix B; chapter 3, Analysis of the Data].

In a second district with both a rural and urban population base, the high school which is being developed from a middle school had 27.27% (N=9/32) of the respondents indicating that their environment could support Q-C activities. This compared to 5.88% (N=2/34) at the established high school.

A third district, located in a small urban center (less than 20,000 inhabitants), had five respondents out 35 (15.15%) who indicated a response total of at least 71. Two of respondents, however, were central administrators. Concomitantly, none of the central administrators of another school district which sends its high school students to the third district, identified the system as not having the type of environment being sought for in this study.
## Table 18
Pearson R for Items 30 Through 44

<table>
<thead>
<tr>
<th>Item</th>
<th>30</th>
<th>31</th>
<th>32</th>
<th>33</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>----</td>
<td>.6359</td>
<td>.6088</td>
<td>.7590</td>
<td>.4505</td>
</tr>
<tr>
<td>31</td>
<td>.6359</td>
<td>------</td>
<td>.9487</td>
<td>.6467</td>
<td>.3249</td>
</tr>
<tr>
<td>32</td>
<td>.6088</td>
<td>.9487</td>
<td>------</td>
<td>.6418</td>
<td>.3196</td>
</tr>
<tr>
<td>33</td>
<td>.7590</td>
<td>.6467</td>
<td>.6418</td>
<td>------</td>
<td>.4009</td>
</tr>
<tr>
<td>34</td>
<td>.4505</td>
<td>.3249</td>
<td>.3196</td>
<td>.4009</td>
<td>------</td>
</tr>
<tr>
<td>35</td>
<td>.0656</td>
<td>.0552</td>
<td>.0192</td>
<td>.0353</td>
<td>.3870</td>
</tr>
<tr>
<td>36</td>
<td>.0221</td>
<td>.0731</td>
<td>.0262</td>
<td>.0106</td>
<td>.3949</td>
</tr>
<tr>
<td>37</td>
<td>.1929</td>
<td>.1806</td>
<td>.1794</td>
<td>.1772</td>
<td>.1897</td>
</tr>
<tr>
<td>38</td>
<td>.3530</td>
<td>.2625</td>
<td>.2587</td>
<td>.2584</td>
<td>.4072</td>
</tr>
<tr>
<td>39</td>
<td>.5933</td>
<td>.4293</td>
<td>.4261</td>
<td>.5285</td>
<td>.4631</td>
</tr>
<tr>
<td>40</td>
<td>.5288</td>
<td>.4204</td>
<td>.4232</td>
<td>.4912</td>
<td>.4573</td>
</tr>
<tr>
<td>41</td>
<td>.4550</td>
<td>.3503</td>
<td>.4195</td>
<td>.4369</td>
<td>------</td>
</tr>
<tr>
<td>42</td>
<td>.4951</td>
<td>.4175</td>
<td>.4077</td>
<td>.4478</td>
<td>.3853</td>
</tr>
<tr>
<td>43</td>
<td>-.1353</td>
<td>-.0855</td>
<td>-.0927</td>
<td>-.1201</td>
<td>.0239</td>
</tr>
<tr>
<td>44</td>
<td>.2016</td>
<td>.1875</td>
<td>.2092</td>
<td>.2301</td>
<td>.0686</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>35</th>
<th>36</th>
<th>37</th>
<th>38</th>
<th>39</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>36</td>
<td>.0656</td>
<td>.0221</td>
<td>.1929</td>
<td>.3530</td>
<td>.5933</td>
</tr>
<tr>
<td>37</td>
<td>.0552</td>
<td>.0731</td>
<td>.1806</td>
<td>.2625</td>
<td>.4293</td>
</tr>
<tr>
<td>38</td>
<td>.0192</td>
<td>.0262</td>
<td>.1794</td>
<td>.2587</td>
<td>.4261</td>
</tr>
<tr>
<td>39</td>
<td>.0353</td>
<td>.0106</td>
<td>.1772</td>
<td>.2584</td>
<td>.5285</td>
</tr>
<tr>
<td>40</td>
<td>.3870</td>
<td>.3949</td>
<td>.1897</td>
<td>.4072</td>
<td>.4631</td>
</tr>
<tr>
<td>41</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>42</td>
<td>.8842</td>
<td>------</td>
<td>.0475</td>
<td>.3041</td>
<td>.1544</td>
</tr>
<tr>
<td>43</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>44</td>
<td>.1217</td>
<td>.1530</td>
<td>.1530</td>
<td>.1530</td>
<td>.1530</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>40</th>
<th>41</th>
<th>42</th>
<th>43</th>
<th>44</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>41</td>
<td>.5288</td>
<td>.4550</td>
<td>.4951</td>
<td>-.1353</td>
<td>.2016</td>
</tr>
<tr>
<td>42</td>
<td>.4204</td>
<td>.3350</td>
<td>.4175</td>
<td>-.0855</td>
<td>.1875</td>
</tr>
<tr>
<td>43</td>
<td>.4232</td>
<td>.3503</td>
<td>.4077</td>
<td>-.0927</td>
<td>.2092</td>
</tr>
<tr>
<td>44</td>
<td>.4912</td>
<td>.4195</td>
<td>.4478</td>
<td>-.1202</td>
<td>.2301</td>
</tr>
<tr>
<td>45</td>
<td>.4573</td>
<td>.4369</td>
<td>.3853</td>
<td>.0239</td>
<td>.0686</td>
</tr>
<tr>
<td>46</td>
<td>.1217</td>
<td>.1665</td>
<td>.1562</td>
<td>.0718</td>
<td>.0016</td>
</tr>
<tr>
<td>47</td>
<td>.1130</td>
<td>.1535</td>
<td>.1530</td>
<td>.1310</td>
<td>-.061</td>
</tr>
<tr>
<td>48</td>
<td>.3092</td>
<td>.2903</td>
<td>.3453</td>
<td>.0191</td>
<td>.0762</td>
</tr>
<tr>
<td>49</td>
<td>.4681</td>
<td>.4021</td>
<td>.4837</td>
<td>.0797</td>
<td>.2431</td>
</tr>
<tr>
<td>50</td>
<td>.7682</td>
<td>.6118</td>
<td>.6531</td>
<td>-.1000</td>
<td>.2431</td>
</tr>
<tr>
<td>51</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>52</td>
<td>.6429</td>
<td>------</td>
<td>.6189</td>
<td>-.0410</td>
<td>.2304</td>
</tr>
<tr>
<td>53</td>
<td>.6569</td>
<td>.6189</td>
<td>------</td>
<td>.0079</td>
<td>.2852</td>
</tr>
<tr>
<td>54</td>
<td>-.0594</td>
<td>.0410</td>
<td>.0079</td>
<td>------</td>
<td>.0797</td>
</tr>
<tr>
<td>55</td>
<td>.3227</td>
<td>.2304</td>
<td>.2852</td>
<td>------</td>
<td>------</td>
</tr>
</tbody>
</table>
Table 19

Aggregate Total—Frequency of Responses Indicating the presence of Q-C Activity

Minimal Response Total: 71

Ideal Response Total: 117

<table>
<thead>
<tr>
<th>Total</th>
<th>Frequency</th>
<th>N in Same District</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>3</td>
<td>---</td>
</tr>
<tr>
<td>68</td>
<td>8</td>
<td>2 (in two Districts)</td>
</tr>
<tr>
<td>69</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>70</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>71</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>72</td>
<td>3</td>
<td>2 (in two Districts)</td>
</tr>
<tr>
<td>73</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>74</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>75</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>76</td>
<td>2</td>
<td>---</td>
</tr>
<tr>
<td>77</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>78</td>
<td>3</td>
<td>---</td>
</tr>
<tr>
<td>79</td>
<td>2</td>
<td>---</td>
</tr>
<tr>
<td>80</td>
<td>2</td>
<td>---</td>
</tr>
<tr>
<td>81</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>82</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>83</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>84</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>85</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>86</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>87</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>88</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>89</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>90</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>Total:</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

Total Number of Respondents: 354
CHAPTER 5
SUMMARY AND RECOMMENDATIONS

Importance of the Study

The origin of this study was back in 1983, just prior to the publication of *A Nation at Risk*. Dr. William D. "Don" Barnes was in the process of directing a series of dissertations based on the 1977 teacher strike at Tucson Unified School District Number One. Many of the troubles and issues from that strike were based on the existence of a classic "we versus they mentality", where the teachers and the administrators saw each other as antagonists rather than members of the same team. At that time, Dr. Barnes, cognizant of the author's administrative background at the university level and his interest in administrative theory, asked to take a look at Quality Circles as part of extending "democratic processes" for the purpose of enhancing operational performance. Having been already exposed to William Ouchi's *Theory Z*, the premise of taking a look at whether or not these Circles could be implemented in schools was one which did engender interest. His precept, as understood then (and still as this is written), is based on the following observation:
Somehow I didn't sense that the word democracy meant a great deal as a personal way of life for any teacher, any student, any administrator, any citizen of the school. What freedom, what equality, what justice, what pursuit of happiness? How and when would these happen? If not in the school, then where? (Barnes, 1977, p. 47)

From this perspective, looking at Quality Circles makes a lot of sense. Circles exploit teamwork by emphasizing on the techné of each individual member of an organization. In particular, Q-Cs rely on self-actualization on the part of each participant to want to do their best for the group. Some have described the concept a democracy in action, and where better to set an example but in the school—where committees are a major part of the daily routine (Ingle and Ingle, 1983, p. 103).

The literature on Quality Circle in education is scarce, but, as Dr. Barnes insinuates, there have been attempts to define these in terms of administrative and classroom activities. If one takes the notion of the teacher as the center of attention and the focus of activity, Circles help in allowing for students to interact more fully with a specific task. And if notion of teamwork is taken, Quality Circles become a mechanism whereby the teachers can add their expertise and different scanning perspective to help the school improve its performance and its product.

Then, later in 1983, the Commission on Excellence came out with its criticism of the school system, and in
particular the high school. They claimed nothing short of an imminent national disaster was in the making.

Our concern, however, goes well beyond such matters as industry and commerce. It also includes the intellectual, moral, and spiritual strengths of our people which knit together the very fabric of our society. The people of the United States need to know that individuals in our society who do not possess the level of skill, literacy, and training essential to this new era will be effectively disenfranchised, not simply from the material rewards that accompany competent performance, but also from the chance to participate fully in our national life. (1983, p. 7)

A Nation at Risk laid a challenge for improvement in all aspects of school life. They not only looked at the curriculum but at teacher preparation and educational leadership. In all, the administration was being asked to realign itself, to look at current managerial thought in business and industry for the purpose of adapting some of these concepts in the belief that these will help increase the overall performance of the school.

At the time, Quality Circles was one of the current trends in managerial theory. Thus, an implication could be made to take a look at the whole aspect of human resources management, namely teamwork, consensuship, and shared power. However, the question which then arose was, how could these managerial trends be adapted to a situation which was more comfortable in a somewhat rigid bureaucratic, power-dependent way of doing things?

Raymond Callahan (1962) makes the argument that education has had a tendency to over-rely on what he terms
the "cult of efficiency". What he means is that there is too much belief on the premises of scientific management (reflecting in many ways how the Japanese viewed American managerial thought in the fifties and later). This view is further echoed by Herbert Stroup who indicates that no other system of decision making has been developed to surpass its rationality in making decisions (1966, pp. 6-7). As a result, the differentiation of task leads to a relationship with the type of power which these groups have in influencing the system as a whole (Hickson et. al., 1971, p. 216).

When one adapts the Miles and Snow (1978) organizational breakdown of three components (entrepreneurial, administrative, and engineering) to schools, one sees the administration and the teachers belonging to two distinct functional groups, the administrative and engineering, respectively. The policy making belongs to the school board which is the entrepreneurial component of the school system (Padró, 1987, p. 3). The traditional view is that "(t)eaching, learning, and administering have best been accomplished when all roles functioned efficiently alone in predetermined pattern." (Snyder and Anderson, 1986, p. 39) In comparing the activities of the three major functions to each other, unfortunately there seems to be a lack of uniformity in how activities are performed which leads to higher uncertainty, a trait which is usually a trademark of
low-performing organizations (Lorsch and Morse, 1976, p. 71).

The presence of Quality Circles in the administration of an organization implies a sharing of power among the various elements of the organization, and more importantly, acknowledging that the organizational actors at the technical or engineering phase (teachers, counselors, librarians, and educational specialists in a high school setting) are able to contribute in making the management of the overall institution more effective and efficient. Emphasis is placed on the "soft" factors of management which focus on individuals and the climate around them: skill acquisition, staffing, style, and superordinate goals. By emphasizing in these skills rather than in the "hardware" aspect of the production function, the need of money is deemphasized since the leaders are looking for internal resources that are already there to resolve issues rather than importing from outside. This is done through a realignment of the "official" lines of communication to form a parallel structure which allows for interaction between the different functional elements in place. Circles therefore only work ideally in stable environments and when they only take on concerns which deal with operational issues; issues such as salary, benefits, and tenure should not be addressed by them. Consequently, two questions do arise in an investigation of Quality Circles in high
schools: (1) do they exist as part of the management of the high school, and (2) if not in name, is the environment which exists at the high school indicative of Quality Circle type activity?

Summary of the Study

Research in managerial styles, especially those which tend to focus on power relationships (be these shared or otherwise) in the field of management is descriptive in nature, basically trying to do no more than say that "x" situation exists. A major approach in this area is the use of statistical analysis based on interviews of key individuals and questionnaires. In many instances these responses are then tested for content validity (eg. Hambrick, 1981, p. 261). In this instance the same philosophy is used, in particular, as Hinings et. al. indicate:

As has been pointed out, these data are not attitude data but perceptions of a supposed reality. It is important to look for consistency of responses as an indication of the validity for representations of systems with interactive subunits... with a high degree of consistency one can assume common perceptions. (1974, p. 24)

The emphasis in this study, however, is based directly on the items which the experts in Quality Circles feel are their major elements. This investigation does not look at strategic contingencies as such, but simply attempts to describe whether or not Q-Cs exist or are able to exist
based on the participants' perception of their surrounding institutional environment.

Seven school districts participated in this query. All but one were found at least in a partially urban setting. Response rates from each district varied from a high of 85.6% to a low of 39%, for an average of just under 60 percent. The response of one of the districts, however, came from the central administrators only. This district does not have a high school, it acts as a feeder to another of the responding districts. The other districts also represent differing approaches to administrative structure: there is a district which is made up of only the high school, there is another district which is in the process of establishing a second high school out of a middle school by switching grades one year at a time (presently that school includes grades seven through ten), a third district which is set in a rural community.

Each district received questionnaires for their central administrators, high school site administrators, teachers, and educational specialists. The instrument was designed to be answered in an average time of fifteen minutes. Some districts required board approval to have the study done in their district, others did not, but all were very cooperative and helpful. Except for one district which chose to have the questionnaire as part of an in-service (which had an 80.2% rate of response), the districts were given a week
to disseminate the instrument to the different individuals and to gather them.

The instrument itself was composed of 44 items. Some of the data was demographic in nature (items 1-6). Some of the data simply asked whether or not they had been specifically trained in certain techniques, and if there was a stated policy in place. Some of the data asked the respondent the degree of their belief in regard to their activities in committees. Statistically, the frequency of the responses was used, and a test at the .05 level of significance was done on items 30-44 to determine if any of the correlations were significantly different from zero.

Summary of the Findings

The questions of this study are:

1. Is there a Quality Circle in name or de facto within the existing framework of the school bureaucracy?

And, if there is no "official" Q-C policy present, the focus shifts to:

2. Can the salient features of the high school's climate be distinguished to see whether or not these elements fall under the definition of Circle activity?

Specifically,

2a. Who is involved in such an activity?

2b. Is this type of activity formal or informal in its modus vivendi?

2c. Is participation voluntary?
2d. Is the type of committee activity dependent upon organizational structure?

2e. Are the Circle's recommendations enacted by the administration?

2f. Is there any type of training for members involving problem-solving and interpersonal relation techniques?

2g. Is there any recognition or reward for this type of activity within the school system?

2h. Are there guidelines handed out on how to be good committee members?

The answer to question one can be said to be an emphatic NO. Most of the respondents indicated that there was no official managerial model in place, and of those that did indicate that there was one, between one-fifth and one-third of the respondents thought that Management by Objectives was the one model officially in place [see pages 193-197].

The same negative response holds for the second question. Thirty four out of 354 respondents, 9.60%, identified an environment which could be described as having some of the elements for the presence of Quality Circles [see Table 19]. In one of the high schools in a two high school urban district, 18.29% (N=15/82) of the respondents scored at least a 71. In the aggregate scoring, 71 indicates the minimal response to the items on the questionnaire when these are weighted in to reflect appropriate responses [see Appendix B].
The non-demographic responses were broken down into 21 categories:

I. Active Participation,
II. Ties Between Administration and Teacher Association,
III. Acquaintance with Q-C Model or Associated Models,
IV. Official Decision Making Policy in Place,
V. Official Quality Control Mechanism,
VI. Presentations on Quality Circles,
VII. Training in Problem Solving,
VIII. Training in Interpersonal Communication Skills,
IX. Coordination of Committee Related Activity,
X. Public Recognition of Committee Activities,
XI. Flexibility to Encourage Innovation,
XII. Reputation for High Standards,
XIII. Administration's Trust of Teacher Judgment,
XIV. Voluntarism,
XV. The Nature of Committees,
XVI. Task-Orientation of Committee Activity,
XVII. Selection of Solvable Problems,
XVIII. Facing the Facts Realistically,
XIX. Reliance on Participant's Role,
XX. Where Decisions are Made, and
XXI. Use of Written Guidelines.
Out of the 21 categories, only categories II, XIV, and XV showed strong positive perceptions on the part of the administrators, department heads, teachers, and specialists. Category X indicated partial presence, while most of the other categories showed differences of opinion according to the individual's role. This is not surprising since category XIX did indicate that such a reliance was apparent at committee activity, and if it is active there, it is probably but a reflection of what goes on elsewhere: the segmentation of departments focuses on the role of the teacher as a member of that department, indicating that committee activity within the confines of the organizational ladder--as indicated by management theorists such as Crozier (1964), Hambrick (1981), Lorsch and Morse (1974, and Perrow (1961) among others--reflects the definition of the "set of signals available to organization members about what is expected of them." (Lorsch and Morse, 1974, p. 13)

This role dependence was seen in the training of the respondents. The data indicated that only the majority of the administrators have been trained in problem-solving techniques, inter-personal relations skills, or both to use in committee situations. On the other hand, only a minority of department heads, teachers, and specialists stated that they have been so trained.

Part of the reason is the training that administrators receive (Snyder and Anderson, 1986, p. 22, op. cit.).
Another reason may be role boundary or relational behavior (Sergiovanni and Carver, 1980, p. 210), where this type of training has not been expanded to those still teaching.

An important echo in the responses collected was the treatment in the districts and high schools of the concept of quality. One of the more important aspects of Quality Circles is that there be a strong focus on the concept of quality. Quality is something that must be ingrained and looked for throughout the whole of the process rather than being something that is talked about in somewhat abstract terms. Enhancing the worker's quality consciousness is important (Nemoto, 1987, pp. 207-208). According to Dewar, the emphasis on quality makes for happier customers and promote "repeat business" (1980, p. 326), two problems which American education is facing today. The data shows that the respondents by and large do not feel that there is an official quality control element for either the high school or the district.

Over 70% of the department heads, teachers and specialists stated that there were no such mechanisms in place anywhere. Over half (54.6%) of the site administrators said that their high school did not have specific quality control mechanisms while 61.5% indicated that their district did not either. Half of the central administrators said that their district did not have quality control mechanisms (half of the central administrators declined to
respond as to whether or not they thought the high school had these mechanisms in place).

In sum, although some of the traits which would be conducive to the existence and use of Quality Circles do seem to exist, these are not altogether sufficient to state that these are being used at least on a de facto basis at the high schools which were studied. Too much dependence on role seems to be apparent. The type of training necessary for committee activity is not present. There are questions of how the in-service works.

Department heads, teachers and specialists can volunteer to be in committees. Now the follow-up questions need to be: (1) in what type of committee activity are they allowed? (2) can they leave them without prejudice? (3) do these individuals have the same type of influence and say as those committee members whose role is superordinate to theirs?

More than anything else, however, is the discrepancy in perceptions which these respondents have indicated. There are certain instances where central administrators have a different perspective than the site administrators. Department heads have a different point-of-view from the administrators and the teachers, and the teachers and educational specialist have their own notions as to what is going on. Effectively, the breakdown of perceptions gives
strength to the notion that the three separate function
groups have their own way of performing their activities.

No attempt is being made to analyze each high school
for strengths and weaknesses. As a whole these high schools
seem to rely on the traditional bureaucratic structure to
maintain their day-to-day operations. Some innovative ways
of attacking issues is apparent at specific locales, but, in
general, decision making is still made the "old fashioned
way". Sharing power still seems to be a question in the
mind of the administrators. The democratic responsibilities
may be perceived as beyond the scope of effective school
management.

Recommendations

There are two types of recommendations which can be
established from this study. The first type is based solely
on the premise of Quality Circles. The second type focuses
on what the data suggests needs to be done to improve
possible problem areas which respondents have identified.

Insofar as the data does not seem to indicate that
Quality Circles are in use in any school or district
investigated, the following recommendations can be made.

* Make a careful analysis of committee activities at the
  high school and the district.

* Establish a two-person team to explore options to
  improve the decision making process at the high school
  and/or district.
* Make a committed effort at defining where quality control issues are to be addressed.

* Improve the existing lines of communication for the purpose of clearly defining the institution's approach to making decisions.

* A formal decision should be made as to the degree of influence which teachers should have in the decision making process of the school and the district.

* Close ties between the administration of a school and the teacher's association should be welcome beyond merely verbal acknowledgement.

* Place a greater emphasis on the soft resources (skill, staff, style, and superordinate goal factors) to improve the effectiveness and efficiency of the school.

* Make inter-personal communication skills and problem-solving techniques part of teacher training, either at the pre-service stage or through in-service.

* Increase the amount of recognition received by teachers.

* Make committee participation voluntary, and insure that individuals who feel that they must withdraw can do so without recrimination.

The responses to the items in the questionnaire, also lead to these other recommendations.

* Define the in-service function, and increase its visibility throughout the high school and/or district.

* Increase the awareness of teachers to the administrative matters which school officials face.

* Focus more on the psychological well being of the teachers.
Suggestions for Future Research

Based on what the respondents had to say and the inherent limitation of an initial description of an environment, the following concepts seem to require further research.

* Ask where individuals received training in problem-solving techniques and/or interpersonal relations skills, and for what purpose?

* Determine what per cent of teachers and department heads have taken or are in the process of taking courses toward the completion of an administrator's certificate.

* There is a need to look at what type of committees are open to teacher participation.

* If teachers and educational specialists can volunteer to join committees, are they allowed to leave them without prejudice?

* See if district size has any effect upon the ability for Quality Circles to exist.

Since this study was designed to lay the groundwork for data analysis of decision making at the high school, it would be necessary to do a follow-up study to analyze in more detail specific elements of the organizational climate to look at:

* What is the power-relationship structure inherent in the high school?

* What specific aspect of role activity engenders a high relationship with power within the high school?

* What constitutes organizational stability within the high school and at the district?
Implications

Based on the responses acquired in this study, shared responsibility is viewed differently by the different members of the high school. Administrators feel that there is a sharing of responsibility while teachers and educational specialists feel that they do not have enough. In terms of committee activity, one aspect which was not looked at but is of importance is the type of committee wherein people interact.

Schools are notorious for their committees. Usually, these are part of departmental activity, i.e. the formal lines of communication. Some of the other committee activity which exists comes under the rubric of helping the administration in policing the store: some of this type of committee activity is concerned with keeping peace and order at lunchtime, entrance and departure time, etc. The main concern seems to be matters of procedure. Thus the question which ensues, are teachers allowed in the substantive decision making process of the high school beyond the constraints of department curriculum?

Snyder and Anderson are of the opinion that schools need to shift to a new paradigm in their management (1986, p. 38). One of their arguments is that there is a need to alter the fundamental assumptions and concomitant practices. Many of the books giving "report cards" to schools in general tend to believe that there is a need to improve what
is already there. What this study demonstrates is that in a specific region, these changes which are called for are not seen in terms of the administration or in the training of teachers to become more knowledgeable in the area of school management.

There is an adage in management theory which states that information is power, and, in this study, there is sufficient evidence to suggest that it is. Thus the question of training is interesting not only because it is only had by the administrators, but that neither the in-service or pre-service process focuses on this aspect of teacher performance (that of the organization animal).

So, in conclusion, the study of Quality Circles and their existence in high schools has the implication of studying the ability of the system to tap its internal constituency to resolve problems that are more than just ancillary in nature. Whether one takes the position that the sharing of authority is beneficial for the effectiveness and efficiency of the high school, the relationships which exist are important in determining the decision making procedures and their degree of effectiveness. The position which indicates that there is a differentiation in the perception of the individuals as to what is actually going on is a harbinger of the high level of uncertainty and unclear technology (as underscored by how internal stability is established) which makes institutional response slower
and less adequate, a path which leads to a lower rate of productivity, and a road which leads to problems of legitimacy.

Summary

This study was conceived back in 1983, worked on in 1986–87, and implemented in the spring of 1988. In 1983, Quality Circles were at the height of their popularity. By 1986 they had dropped from the frontline, indeed making some individuals question whether or not Q-Cs were a fad.

Fad or not, Quality Circles are the basis of a number of the models established under the name of human resources management (in this study, attention was given to only three of them as well as a prolonged discussion of Theory Z). The Quality Circle process includes (1) problem identification, (2) problem selection, (3) problem analysis, and (4) recommendations for action (i.e., solutions). For these to take place, the following criteria must be present:

1. membership in the Circles must be made up of individuals who are part of the normal workforce;
2. participation must be voluntary for the most part;
3. meetings need to be held on a regular basis; and
4. members must be trained in problem-solving and group process techniques.

In Southern and Central Arizona, school districts are not using Q-Cs in name or in fact. Although there are some trends which can allow these to be formed, once a decision is made to include teachers in making decisions for the more
substantive issues, for the most part what exists is the traditional approach to management. Thus the impetus for change at the institutions in this region seems to focus more on the curricular mandates than the restructuring of the managerial process. And this is unfortunate because by so keeping the segregation of the functional elements of the high school intact, the high school and the school district as a whole, are not tapping a resource which could help them resolve issues which need to be resolved, and without a whole lot of money.
APPENDIX A

INSTRUMENT USED FOR DATA COLLECTION
(Scanner Sheets + Introduction Page)
Dear Respondent:

Thank you very much for taking the time to complete this survey. It should take you no more than fifteen minutes to complete. Your response will be anonymous.

This project is a multi-district study of whether or not Quality Circles exist or can exist in the current school climates. The focus is on the high school and its interaction with the central administration. At first, we are looking to see whether or not Q-Cs are a formal part of the operation. If Circles are a formal part of the school management procedure, then we want to look at how the participants feel about the process, to check whether or not the participants are comfortable with them. If Quality Circles are not a part of the formal management process at the high school, we want to determine whether or not the process that is in place has the attributes of Q-C activity.

Please note that question number 3 is primarily for those in a strict career ladder plan: a master teacher is a designation given to a teacher who is tenured and has at least five years as a senior teacher; a senior teacher is a designation given to a teacher who is tenured and has at least three years as a tenured teacher. A beginning teacher is considered to be a "new teacher" who is untenured and at the beginning phase of the teaching profession. For those of you who are not in a career ladder plan, please enter your response as beginning teacher, if you are tenured or if new teacher if you are not tenured.

Fernando F. Padró
Teacher and Teacher Education
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you a (a) central administrator, (b) site administrator, (c) department head, (d) teacher, (e) counselor, (f) librarian, (g) other?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Are you a (a) tenured (b) non-tenured (c) other?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. If you are a teacher, are you classified as (a) master teacher? (b) senior teacher? (c) other?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How many years have you been at your present position? (a) 0-3 years, (b) 4-7, (c) 8-11, (d) 12-15, (e) 16-19, (f) 20-23, (g) 24-26, (h) 27-31, (i) 31+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How many years have you been with this school? (a) 0-3 years, (b) 4-7, (c) 8-11, (d) 12-15, (e) 16-19, (f) 20-23, (g) 24-26, (h) 27-31, (i) 31+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How many years have you been with this school district? (a) 0-3 years, (b) 4-7, (c) 8-11, (d) 12-15, (e) 16-19, (f) 20-23, (g) 24-26, (h) 27-31, (i) 31+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Do you consider yourself an active participant in the school's decision making process? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Do you consider yourself an active participant in the district's decision making process? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Do you believe in close ties between the administration and the teacher's association? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Are you active in the local teacher's association? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Have you heard of Quality Circles (QC) or Quality Control Circles (QCC)? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Have you heard of Total Quality Circles (TQC)? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Have you heard of Quality of Work Life (QWL)? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Have you heard of Management by Objectives (MBO)? (a) Yes, (b) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Which one of the following is the officially stated decision making policy in your district? (a) Quality Circles (b) Total Quality Teams (c) Quality of Work Life (d) Management by Objectives (e) None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Which one of the following is the officially stated decision making policy in your school? (a) Quality Circles (b) Total Quality Teams (c) Quality of Work Life (d) Management by Objectives (e) None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. If none of the above exist in your school district, is there another specific management model in effect? (a) Yes, It is called</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. If none of the above exist in your school, is there another specific management model in effect? (a) Yes, It is called</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Is there an official decision making system in your high school which specifically deals with the concepts of 'quality control' (a) In administration, (b) In curriculum, (c) Both of these, (d) None of these</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Is there an official decision making system in your school district which specifically deals with the concepts of 'quality control' (a) In administration, (b) In curriculum, (c) Both of these, (d) None of these</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Has the school district made presentations on Quality Circles? (a) Yes, (b) No, (c) Do not know</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UNIVERSITY OF ARIZONA INDIVIDUALIZED QUESTIONNAIRE

For questions (30-44), please answer as indicated:
(a) Definitely Disagree.
(b) Inclined to disagree.
(c) Do not agree or disagree.
(d) Inclined to agree.
(e) Definitely agree.

20. Has the high school made presentations on Quality Circles?
   (a) Yes, (b) No, (c) Do not know.
21. Were you trained in problem-solving techniques to use as a committee member?
   (a) Yes, (b) No, (c) Do not know.
22. Were you trained in interpersonal communication skills for committee activities?
   (a) Yes, (b) No, (c) Do not know.
23. Is there a person who coordinates committee-related activities in your school district?
   (a) Yes, (b) No, (c) Do not know.
24. Is there a person who coordinates committee-related activities in your high school?
   (a) Yes, (b) No, (c) Do not know.
25. Does the in-service office provide support for committee-related activities?
   (a) Yes, (b) No, (c) Do not know.
26. Are committee activities publicly recognized by the administration?
   (a) Yes, (b) No, (c) Do not know.
27. Committee activities are recognized in (a) the local high school newspaper,
   (b) the district's newsletter, (c) public meetings, (d) school board meetings.
   (a) yes, (b) no, (c) do not know.
28. Our high school has a reputation for high academic standards.
29. Our school district has a reputation for high academic standards.
30. Our administration trusts the individual judgment of our teachers.
31. I am allowed to volunteer for committees.
32. The committees in the school district are ad-hoc (temporary in nature).
33. The committees in my high school are ad-hoc (temporary in nature).
34. I frequently serve on standing (permanent) committees.
35. Most of my committee work is task-oriented.
36. Most of the committees in which I have served select problems that we can do something about.
37. Most of the committees in which I have served state the problem clearly.
38. In most of the committees in which I have served, the members of the committee face the hard facts realistically rather than just being nice to each other.
39. In resolving conflicts, most of the committees in which I have served rely on the participant's role in the organization.
40. In most of the committees in which I have served, decisions are made by referring the issue to another committee or administrative superior.
41. In most of the committees in which I have served, all of the committee members have been given written guidelines and established policy for direction in their roles as committee members.
APPENDIX B

INSTRUMENT WEIGHTING FACTORS

1. I am a:  
   [a] central administrator.  
   [b] site administrator.  
   [c] department head.  
   [d] teacher.  
   [e] counselor.  
   [f] librarian.  
   [g] other: ________

Weight: none

2. I am:  
   [a] tenured  
   [b] non-tenured  
   [c] other: __________

Weight: none

3. If you are a teacher, are you classified as a:
   [a] master teacher?  
   [b] senior teacher?  
   [c] teacher?  
   [d] new teacher?

Weight: none
4. How many years have you been at your present position?

Weight: none

5. How many years have you been with this school?

Weight: none

6. How many years have you been with this school district?

Weight: none

7. Do you consider yourself an active participant in the school's decision making process?

Weight: [a] Yes. = 2 [b] No. = 0

8. Do you consider yourself an active participant in the district's decision making process?

Weight: [a] Yes. = 2 [b] No. = 0
9. Do you believe in close ties between the administration and the teacher's association?

Weight: [a] Yes. = 2 [b] No. = 0

10. Are you active in the local teacher's association?

Weight: [a] Yes. = 2 [b] No. = 0

11. Have you heard of Quality Circles (Q-C) or Quality Control Circles (QCC)?

Weight: [a] Yes. = 2 [b] No. = 0

12. Have you heard of Total Quality Control Teams (TQC)?

Weight: [a] Yes. = 1 [b] No. = 0

13. Have you heard of Quality of Work Life (QWL)?

Weight: [a] Yes. = 1 [b] No. = 0

14. Have you heard of Management by Objectives (MBO)?

Weight: [a] Yes. = 1 [b] No. = 0
15. Which one of the following is the officially stated decision making policy in your district?

**Weight:**

[a] Quality Circles? = 5  
[b] Total Quality Teams? = 4  
[c] Quality of Work Life? = 3  
[d] Management by Objectives? = 2  
[e] None. = 0

16. Which one of the following is the officially stated decision making policy in your high school?

**Weight:**

[a] Quality Circles? = 5  
[b] Total Quality Teams? = 4  
[c] Quality of Work Life? = 3  
[d] Management by Objectives? = 2  
[e] None. = 0

17. If none of the above exist in your school district, is there another specific management model in effect?

**Weight:**

[a] Yes. = 0  
[b] No. = 2

18. If none of the above exist in your high school, is there another specific management model in effect?

**Weight:**

[a] Yes. = 0  
[b] No. = 2
19. Is there an official decision making system in your high school which specifically deals with the concepts of "quality control"?

Weight: [a] In administration. = 3 [b] In curriculum. = 3 [c] both of these. = 5 [d] None of these. = 0

20. Is there an official decision making system in your school district which specifically deals with the concepts of "quality control"?

Weight: [a] In management. = 3 [b] In curriculum. = 3 [c] Both of these. = 5 [d] None of these. = 0

21. Has the school district made presentations on Quality Circles?

Weight: [a] Yes. = 2 [c] Do no know. = 1 [b] No. = 0

22. Has the high school made presentations on Quality Circles?

Weight: [a] Yes. = 2 [c] Do not know. = 1 [b] No. = 0
23. Were you trained in problem-solving techniques to use as a committee member?

Weight: [a] Yes. = 2 [b] No. = 0

24. Were you trained in interpersonal communication skills for committee activities?

Weight: [a] Yes. = 2 [b] No. = 0

25. Is there a person who coordinates committee-related activities in your school district?

Weight: [a] Yes. = 2 [c] Do not know. = 1 [b] No. = 0

26. Is there a person who coordinates committee-related activities in your high school?

Weight: [a] Yes. = 2 [c] Do not know. = 1 [b] No. = 0

27. Does the in-service office provide support for committee-related activities?

Weight: [a] Yes. = 3 [b] No. = 0 [c] Do not know. = 1
[b] Do not have an in-service office. = 0
28. Are committee activities publicly recognized by the administration?

Weight: [a] Yes. = 2 [b] Sometimes. = 1 [c] No. = 0

29. Committee activities are recognized in

Weight: [a] the local high school newspaper. = 3
[b] the district's newsletter. = 3
[c] public meetings. = 3
[d] school board meetings. = 3
[e] school assemblies. = 3
[f] none of the above. = 0

30. The administration is flexible enough that innovations are encouraged and will receive consideration.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

31. Our high school has a reputation for high academic standards.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4
32. Our school district has a reputation for high academic standards.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

33. Our administration trusts the individual judgment of our teachers.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

34. I am allowed to volunteer for committees.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

35. The committees in the school district are ad-hoc (temporary) in nature?

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

36. The committees in my high school are ad-hoc (temporary) in nature?

Weight: A = 0  B = 1  C = 2  D = 3  E = 4
37. I frequently serve on standing (permanent) committees.

Weight: A = 4  B = 3  C = 2  D = 1  E = 0

38. Most of my committee work is task-oriented.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

39. Most of the committees in which I have served select problems that we can do something about.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

40. Most of the committees in which I have served state the problem clearly.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4

41. In most of the committees in which I have served, the members of the committee face the hard facts realistically rather than just being nice to each other.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4
42. In resolving conflicts, most of the committees in which I have served rely on the participant's role in the organization.

Weight: A = 4  B = 3  C = 2  D = 1  E = 0

43. In most of the committees in which I have served, decisions are made by referring the issue to another committee or administrative superiors.

Weight: A = 4  B = 3  C = 2  D = 1  E = 0

44. In most of the committees in which I have served, all of the committee members have been given written guidelines and established policy for direction in their roles as committee members.

Weight: A = 0  B = 1  C = 2  D = 3  E = 4
**Minimum Acceptable Response**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Yes (2)</td>
<td>26</td>
</tr>
<tr>
<td>8</td>
<td>No (0)</td>
<td>27</td>
</tr>
<tr>
<td>9</td>
<td>Yes (2)</td>
<td>28</td>
</tr>
<tr>
<td>10</td>
<td>No (0)</td>
<td>29</td>
</tr>
<tr>
<td>11</td>
<td>Yes (2)</td>
<td>30</td>
</tr>
<tr>
<td>12</td>
<td>No (0)</td>
<td>31</td>
</tr>
<tr>
<td>13</td>
<td>No (0)</td>
<td>32</td>
</tr>
<tr>
<td>14</td>
<td>Yes (1)</td>
<td>33</td>
</tr>
<tr>
<td>15</td>
<td>D (2)</td>
<td>34</td>
</tr>
<tr>
<td>16</td>
<td>D (2)</td>
<td>35</td>
</tr>
<tr>
<td>17</td>
<td>Yes (0)</td>
<td>36</td>
</tr>
<tr>
<td>18</td>
<td>No (2)</td>
<td>37</td>
</tr>
<tr>
<td>19</td>
<td>B (2)</td>
<td>38</td>
</tr>
<tr>
<td>20</td>
<td>A (3)</td>
<td>39</td>
</tr>
<tr>
<td>21</td>
<td>No (0)</td>
<td>40</td>
</tr>
<tr>
<td>22</td>
<td>Yes (2)</td>
<td>41</td>
</tr>
<tr>
<td>23</td>
<td>Yes (2)</td>
<td>42</td>
</tr>
<tr>
<td>24</td>
<td>Yes (2)</td>
<td>43</td>
</tr>
<tr>
<td>25</td>
<td>C (1)</td>
<td>44</td>
</tr>
</tbody>
</table>

---

Total 1: 25  
Total 2: 46

**Minimal Presence of a Q-C environment:** 71
### Ideal Responses for Q-C Presence

<table>
<thead>
<tr>
<th></th>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Yes (1)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Yes (1)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Yes (1)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>A (5)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>A (5)</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>No (2)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>No (2)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>C (5)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>C (5)</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Yes (3)</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Yes (2)</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>B (3)</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>A (4)</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>E (4)</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>A (4)</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>A (4)</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>E (4)</td>
<td></td>
</tr>
</tbody>
</table>

---

**Total 1:** 47  
**Total 2:** 70

**Ideal Q-C Environment:** 117
APPENDIX C

POOL OF QUESTIONS FROM AVAILABLE SOURCES


p. 114:
IMPROVING SUPPORTIVE BEHAVIOR OF EACH MEMBER OF A GROUP.

To what extent do you feel that the members of your group:

1. Are friendly and easy to talk to.
   Very little Some Considerable Very Great
   1  2  3  4  5  6

2. Listen well to you and others whether they agree or disagree.
   1  2  3  4  5  6

3. Encourage you and others to express ideas fully and frankly.
   1  2  3  4  5  6

4. Encourage you and others to express feelings frankly.
   1  2  3  4  5  6

5. Display confidence and trust in you and others whether or not they agree.
   1  2  3  4  5  6

6. Share information frankly.
   1  2  3  4  5  6

7. Expect you to do the very best.
   1  2  3  4  5  6

8. Expect a high-quality job from themselves.
   1  2  3  4  5  6

9. **Think what the group is doing is important.
   1  2  3  4  5  6

10. **Encourage new and creative ideas.
   1  2  3  4  5  6
11. **Are willing to take risks.
   1 2 3 4 5 6 7 8

12. Are not defensive when criticized.
   1 2 3 4 5 6 7 8

13. **Avoid treating others in a condescending manner.
   1 2 3 4 5 6 7 8

14. Avoid being impatient with the progress being made by the group.
   1 2 3 4 5 6 7 8

15. **Encourage group to work through disagreements, not suppress them.
   1 2 3 4 5 6 7 8

16. **Show no favorites; treat all members equally.
   1 2 3 4 5 6 7 8

17. ***Give credit and recognition generously.
   1 2 3 4 5 6 7 8

18. **Accept more blame than may be warranted for any failure or mistake.
   1 2 3 4 5 6 7 8

19. ***Avoid imposing a decision upon the group.
   1 2 3 4 5 6 7 8

p. 118:
PROFILE OF OWN BEHAVIOR

To what extent do you feel that you:

1. Are friendly and easy to talk to.
   1 2 3 4 5 6 7 8

2. **Listen to others whether you agree or disagree.
   1 2 3 4 5 6 7 8

3. Encourage others to express their ideas fully and frankly.
   1 2 3 4 5 6 7 8

4. Encourage others to express their feelings frankly.
   1 2 3 4 5 6 7 8

5. Share information frankly.
   1 2 3 4 5 6 7 8
6. **Expect a high-quality job from yourself.  
1 2 3 4 5 6 7 8

7. **Think what you and your group are doing is important.  
1 2 3 4 5 6 7 8

8. **Are willing to take risks.  
1 2 3 4 5 6 7 8

9. **Show no favorites; treat all members equally.  
1 2 3 4 5 6 7 8

10. **Avoid imposing a decision upon the group.  
1 2 3 4 5 6 7 8

p.178:
PROFILE OF GROUP PROBLEM SOLVING

In our problem solving, to what extent are we:

1. Selecting problems that we can do something about.  
1 2 3 4 5 6 7 8

2. Making sure that we are discussing the real problem.  
1 2 3 4 5 6 7 8

3. Stating the problem clearly.  
1 2 3 4 5 6 7 8

4. Search for and stating situational requirements.  
1 2 3 4 5 6 7 8

5. Avoid solution-mindedness.  
1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

7. Realistically facing hard facts rather than just being nice to each other.  
1 2 3 4 5 6 7 8

p. 283:(Questions derived from forms of power used)

1. In resolving conflicts, the committee relies on the participant's role in the organization.  
1 2 3 4 5 6 7 8
2. In resolving conflicts, the committee relies on win-win principles, where everyone is made to feel as a positive contributor.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

3. Conflicts are resolved by those who are deemed experts in that area by the committee.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

4. There are obvious winners and losers in committee decisions.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

5. Decisions are made in foresight of what is believed to be rewarded by the administration.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

6. Decisions are made in terms of referring the issue to another committee or administrative superiors.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

7. Mutual interests are paramount in making decisions.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

p. 284

To what extent are the following used:

1. integrative goals  1 2 3 4 5
2. mutual interests  1 2 3 4 5
3. situational requirements and the authority of facts.  1 2 3 4 5
4. principle of supportive relationships.  1 2 3 4 5

To what extent is status deemphasized.

| 1 | 2 | 3 | 4 | 5 |

To what extent is problem-solving depersonalized.

| 1 | 2 | 3 | 4 | 5 |

To what extent does the method for coping with this conflict heighten or lessen differences in values and goals?  12345

What effect does the method for coping with this conflict have on:

1. communication  1 2 3 4 5
2. confidence and trust.  1 2 3 4 5

To what extent do the conflicting parties seek to exert influence only or are they willing to be influenced as well?
Employee Attitude Questionnaire

(1)= Definitely Disagree  (2)= Inclined to Disagree
(3)= Inclined to Agree     (4)= Definitely Agree

1. We can get into trouble by occasionally deviating from standard prescribed practices.
2. Management is flexible enough that innovations are encouraged and will receive consideration.
3. Our organization has a reputation for high standards.
4. Our organization trusts individual judgment to the point that only rarely is one's work really checked.
5. Employees take pride in being a member of this organization.
6. Our organization subscribes to the philosophy of striving for constant improvement.
7. Management does a good job of providing recognition for good work.
8. Employees in our organization trust each other.
9. We are a well-organized group around here.

10. In our organization employees take pride in turning out good work.
11. Management does not expect you to check everything with them. If you clearly know what to do, you can move right ahead.
12. Our promotion policies are designed to move the best people up. There are no favorites.
13. Personnel in our organization are generally pleasant and friendly.
14. Our quality and productivity rarely suffer because of poor planning and organization.
15. In our organization, management sets challenging goals for us.
16. In our organization, a person can occasionally "take the initiative" without getting into trouble.
17. Management rewards us fairly according to the excellence of our job performance.
18. Our organization is efficient and well managed.
19. Our organization is expanding because we are not afraid to take appropriate risks when the situation calls for it.
20. The rewards and encouragement we get are normally greater than threats and criticism.
21. Management has a very close relationship with this organization's personnel.
22. It is clear that management is anxious to improve performance in this organization.
23. Policies and procedures are followed only when essential.
24. There appears to be considerable loyalty toward the organization.
25. In our organization there isn't much criticism.

Evaluating the Steering Committee

Have objectives been identified for Circle activities?

What is the frequency of the steering committee meetings? (preferably at least monthly)

Are funding arrangements for Circle activities clearly established? For instance, how are they charged and controlled?

If a suggested program exists, has a clear-cut policy been formulated regarding its relationship with Quality Circles?

Were baseline measurements secured prior to starting Circle activities?

Did the steering committee meet with the pilot program leader candidates prior to training?

Does the steering committee regularly have a get-acquainted session with each group of new leader candidates?

Does the steering committee allow for motions to be made? That is, is it one person, one vote?
Does the steering committee operate democratically as a Circle?

Did the steering committee meet with the union president, or a committee from the union, to provide and informational briefing prior to the initialization of Circle activities?

Do steering committee members, on occasion, attend Circle meetings and presentations?

Has the steering committee clarified and communicated to Circles what is not contained in the Circle Charter? (Examples include: personnel problems, grievances, wage and salary issues.)

Has there been consistent increase in the number of Circles being formed?

What kind of dropout rate exists among Circles?

Are several organizations represented on the steering committee? (Examples include: production, quality control, engineering, finance, personnel, education and training, suggestions program manager)

What organizations were omitted? Any particular reason?

Has the steering committee at least one member who is a Circle leader? When this is the case, this individual usually rotates on a frequency of once a quarter or every six months.

Does the steering committee have, or has it considered, having one member who is a Circle member? (When done, this individual usually rotates monthly or quarterly.)

Are minutes of the steering committee maintained? Distributed?

Has an implementation plan been developed to achieve Circle objectives?

Has a Quality Circle policy and procedure been developed?
What method has been used for identifying backup facilitator(s)?

Were employees advised ahead of time about Quality Circles? (Typical ways this is accomplished may include: company newspaper, letters to homes, mass gathering in auditorium, numerous small group sessions, and one-on-one.)

Have guidelines been established for Circle activities? Examples include: frequency of Circle meetings, duration of each Circle meeting, should meetings be held during normal hours or conducted outside of regular working hours, or, should the leader have the choice to decide for himself or herself?

Has there been any thought given to other steering committees being formed in your organization? An example is where other plant locations exist. Sometimes, a steering committee at a corporate level sets overall guidelines and policies, with lower level steering committees operating within that framework.

Does the steering committee make any kind of report of its activities to the Chief Executive Officer (CEO)?

Was the original facilitator opening, as well as subsequent additions, advertised openly throughout the organization?

Did the steering committee interview any of the facilitator candidates?

Evaluating the Circle Leader

Were Circle leaders volunteers?

Did each Circle leader go through the leader training course prior to starting a Circle?

Did each leader provide a general overview of Quality Circles to all employees in his/her workgroup?
Did leaders take care not to preselect the members for their first Circles? That is, did they make the selection on some kind of nondiscriminatory basis?

Are minutes of Circle meetings maintained?

Has each leader assigned a member to keep the minutes of each meeting?

Has each leader appointed at least one assistant leader?

Has each leader maintained a status of all Circle projects and assessed final dollar and/or other improvements?

Does each leader maintain a variety of on-going records such as attendance, member training, status, etc.?

Does each leader prepare an agenda for Circle meetings?

When identifying a list of possible problems to work on, does the leader caution members to concentrate on those that are directly under control of Circle members?

When selecting the problem the Circle will analyze, does the leader remind members to choose their own problems rather than those of others?

Does each leader do a good job of involving everyone in the Circle?

Does the leader occasionally ask members to assist in the training?

Does the leader get maximum participation by members in a management presentation?

Does the leader consistently help Circle members to develop a schedule for each project chosen?

Has each leader helped the Circle to develop its code of conduct?
Is the code of conduct for each Circle displayed in the meeting area?

What is the dropout rate in a given Circle? Why?

Are there suitable meeting rooms for Circle activities?

Has any method been developed whereby Circle members can make a self-evaluation of their progress?

Evaluating the Training

Has a Quality Circle orientation briefing been provided to all managers?

Are all supervisors regularly notified of upcoming leader training classes?

Are Circle leaders required to attend Quality Circle leader training classes as a prerequisite to starting a Circle?

Do all Circle members receive training in the use of Quality Circle techniques?

Which of the following Quality Circle techniques are taught to Circle members:

- Case study
- Problem prevention
- Brainstorming
- Data collection techniques
- Data collection formats
- Charts and graphs
- Decision analysis (Pareto)
- Cause-&-Effect problem analysis
- Process C-&-E problem analysis
- Management presentation techniques
- Histograms
- Control Charts
- Stratification
Are lesson guides and training materials available to the facilitators to assist in teaching leader classes?

Are lesson guides and training materials available to the leader to assist in teaching member classes?

Are audio-visual materials available to the facilitator and leader to enhance and shorten the training program?

Does each member have a training manual?

Do all members take quizzes during training sessions?

Are members encouraged to do worksheet problems?

Are instruction aids such as projectors, blackboards, flip charts, and tape recorders available for training purposes?

Are Educational and Training (E & T) personnel available to assist the facilitator in training leaders?

Does E & T provide training completion certificates for those who have completed leader training?

Does E & T provide training completion certificates for those who have completed member training?

Does leader training include, in addition to the Quality Circle techniques, the following:

  - Motivation?
  - Communication?

Potential problems?
Organizing the new Circle?
Group dynamics?
Management by objectives?
Running meetings?
Evaluating the Recognition Policies and Practices

Has each Circle made at least one management presentation during the past six months to present status, achievements, and/or recommended solutions?

Are Quality Circle activities reported on a regular basis in your organizational newspaper?

Are Circle activities regularly included in weekly activity reports of managers who have Quality Circles in their organization?

Does the facilitator's weekly activity report regularly include recognition-type news items?

Has there been at least one newspaper or magazine article about your Quality Circle activities published during the last 12 months?

Has a facilitator, leader, or member been sent to at least one conference on Quality Circles during the past twelve months?

Has at least one facilitator, leader, or member spoken at a regional or national conference on Quality Circles during the past 12 months?

Has at least one of your facilitators, leaders, or members spoken at some community club function during the past three months?

Has at least one of your facilitators, leaders, or members spoken at a school class during the past three months?

Have Circles been recognized in the community newspaper, radio, or TV at least once during the past six months?

Are Circle members provided with other recognition items such as plaques, trophies, etc.?

Are bulletin boards ever been used to publicize Circle activities?
Other recognition techniques include:

Has the possibility of an in-house "conference" been discussed or has it occurred? (These usually last about one hour, are attended by all Circle members and executive management and include presentations by 3 or 4 Circles.)

Evaluating Supervision and Management

Has each manager with Quality Circles dropped in on a Quality Circle meeting during the past three months?

Do executive management personnel regularly include Quality Circles in their annual objectives?

Do middle managers regularly include Quality Circles in their annual objectives?

Do department managers regularly include Quality Circles in their annual objectives?

Has at least one manager included Quality Circles as part of his speech outside the company during the past three months?

Has management allowed the facilitator to attend a conference during the past 12 months?

Has management allowed either a leader or a member to attend a conference during the past twelve months?

Have visitors from outside your facility been allowed to sit in on Circle meetings during the past three months? (This can be a learning experience for your people as well as visitors.)

Does management provide, or route, a copy of the Quality Circle Digest magazine published by the Quality Circle Institute in Red Bluff, California, and/or the IAQC Quality Circle Journal?
Is a copy of either or both of the above magazines provided or routed to each manager who has Quality Circles in his department?

Does management advise all supervisors of upcoming training classes?

Has management provided for Quality Circle policies and procedures?

Is Quality Circle participation on the supervisory and management levels voluntary?


Checklist of Organizational Requirements Quality Circle Success

The managers and supervisors involved have been determined to be skilled at teamwork.

It has been verified that a general attitude of support for the program exists from the top down.

The organization has espoused a Theory-Y approach to people.

Measurable productivity goals have been set for the programs and the circles.

A well-structured system for two-way communication has been set up.

The participating managers and supervisors have been trained as intensively as circle members.

A system has been developed for reporting results to management, and this system has been communicated to everyone involved.

A facilitator has been hired or appointed to conduct leader training.
It has been agreed that the circles are to have access to group-expense information for the application of cost-reduction and value-analysis techniques.

Provision has been made for the circle to have access to in-house expertise.

A system for formal recognition (and rewards, if desired) has been established.

Adequate staffing and funding have been provided for the program.

Specific and appropriate places have been determined for circle meetings.

Space has been created within the work area for the display of physical evidence of circle activities.

A realistic time frame for achieving results has been established.

The organization has instituted a productive measure.

It has been acknowledged that the circles are to be given room to make mistakes.

All of the involved have been given written guidelines and established policy for direction.

Feasibility Assessment for QC Intervention

Maintenance Level

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Have any top-level executives expressed dissatisfaction with the company's performance?</td>
</tr>
<tr>
<td>2.</td>
<td>Have any top-level executives been shifted to new positions?</td>
</tr>
<tr>
<td>3.</td>
<td>Has any area or problem been a constant source of worry or concern within the company?</td>
</tr>
<tr>
<td>4.</td>
<td>Has the board of directors expressed any specific concerns to senior management?</td>
</tr>
<tr>
<td>5.</td>
<td>Has the company performed at lower than the industry standard?</td>
</tr>
</tbody>
</table>
6. Have profit or growth targets fallen below management expectations?

7. Have attempts been made to unionize any segment of the work force?

8. Have there been any major setbacks or reversals in market share or product introduction?

9. Have any major new ideas or approaches been implemented in the work place?

10. Have there been any significant increases in turnover, scrap, or absenteeism rates?

11. Has any budget item risen significantly out of proportion to other budget items?

12. Have any takeover attempts been made by another company?

13. Have any new divisions been added?

14. Have there been any major reorganizations?

15. In your opinion do top executives have more to gain rather than lose by innovating within the company?

<table>
<thead>
<tr>
<th>Synergistic Level</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

1. Does the senior-management team ever participate in team-building sessions?

2. Are the company's managers frequently reminded to cooperate with each other?

3. Is any type of matrix system used within the company?

4. Are enough conference rooms available for meetings?
5. Do all of the top executives usually meet together rather than in one-on-one sessions?

6. Is "empire-building" activity low, indicating defensiveness and the perception of powerlessness?

7. Are most decisions that affect more than one area reached by consensus?

8. Is management by objectives or outcomes used and supported?

9. Do operating departments frequently ask for support from each other?

10. Do the top executives present a united front when new or unusual decisions are announced?

11. Is a rotational system of management ever used?

12. Are top managers and executives encouraged to take sabbatical leave?

13. Does the company have an organizational-development function or department?

14. Does the company have a successful suggestion plan?

15. Is the president a good delegator?

Environmental Level

1. Is the company the only major employer in the area?

2. Is the company highly regulated by state or Federal agencies?

3. Does the company have a predominantly conservative corporate image?

4. Is the surrounding work population relatively stable?
5. Is the community a relatively no-growth or slow-growth area?

6. Do employees have to travel over fifty miles to attend a college or university?

7. Are other area businesses predominantly unionized?

8. Do the top executives have close political ties to state or Federal officials?

9. Is the company a frequent target for lawsuits and discrimination claims?

10. Are the company's customers or clients primarily located in a limited geographical area?

Check List for Barrier Identification

The Company's History

- Past program failures (such as MBO, zero-based budgeting, and so forth) may be linked negatively to quality circles.
- Within the past five years, a union has been voted in.
- Within the past five years, a work stoppage, slowdown, or strike has occurred.

The Company's Management

- Most managers have been around for a long time and are firmly entrenched in their positions.
- The "carrot-on-a-stick" tactic is the most popular approach to managing workers.
- There are many positions in which the holder has responsibility but no authority.
Infighting, politics, and territoriality are prevalent among managers.

Crisis management is the overriding policy of the company.

Managers take care to avoid risks in their decision making.

Problem solving begins with a WFII: Whose Fault Is It?

Most jobs seem to result in a dead end; there is little or no emphasis on career or personal development, succession planning, or training.

**Prevailing Employee Attitudes**

A union represents and is usually at odds with management.

A union represents employees and is usually at odds with management.

Employees are rapidly leaving the company and citing "better pay" with competitors as their incentive.

Absen­teeism is especially high on Mondays and Fridays.

Grievances continue to be pressed, even though their solutions appear obvious.

Employees say that their objective is to put in their time, receive their paychecks, and nothing more.
APPENDIX D

ABSTRACT PRESENTED TO THE SCHOOL DISTRICTS
FOR PRINCIPAL AND BOARD APPROVAL

Quality Circles: Do They and Can They Exist in Schools?

One of the offshoots from the government-backed report, A Nation at Risk (1983), was for a call that new ideas be imported from outside the school environment in order to improve the operation of schools. The primary focus of attention was the improvement of student performance. A second concern was with the managerial aspect of these institutions.

The focus of this investigation is on the second concern. Over the years, writers such as Dale Mann (1974), Karolyn Snyder and Robert Anderson (1986) have been saying that school administrators should provide the leadership to bring in and adapt new approaches to management for the purpose of improving the operational realm. Appealing as this sounds, history shows that some of these attempts (and there have been quite a few throughout the years) are implausible because of certain attributes which make school systems different from most other social organizations. The problem has not been a lack of willingness, rather, it is
one of internal misunderstanding—a lack of definition—of the roles which the various participants should partake.

In the eighties, the business world and the realm of management theory are involved in the "empowering" or "participative management" approach to improve the operational elements of the organization, the current phase of the human relations movement. The emphasis, based on the Japanese example of success, is on shared responsibility as identified by the roles of the individuals. Interdependence rather than specialization and its ensuing segmentation is sought as the objective (Peters and Waterman, 1982). The people in the organization know what is expected of them, what they can do, and the degree of freedom they have to pursue their task; all of which is based on clearly identified issues.

The Quality Circle is the best-known of these current approaches to management due to the success of William Ouchi's *Theory Z* (1981). It is the oldest of these "new" insights, being credited as the harbinger of the newer concepts. Quality Circles also have the advantage of having very narrow definitions on how they are developed, the institutional climate which fosters their existence, and how they must operate. Thus from an investigative point-of-view, Circles are ideal.

Quality Circles generally are ascribed to be ad-hoc committees whose sole purpose is to deal with a specific
organizational problem. The committees created are special because the members are mainly volunteers from the "problem" area who want to help resolve a perceived shortcoming. Committee members, after they have demonstrated their interests are then taught interpersonal communication skills and problem-solving techniques. Conversely, Circle participants are seen as "experts", and their recommendations are given due consideration by the policy making (governance) level of the institution. Reward comes from participation and the recognition which the organization formally gives their work.

The key to the problem being investigated focuses on the institutional climate which is present. In the first place, the public is desirous of finding a more accountable method of success both for the students and for schools as a whole. Secondly, if the schools are implementing a new approach aimed at improvement, the approach needs to be sold to the teachers as well as to the tax-payers. And on this last note, it is essential for all personnel to feel that they are an integral part of the new process.

This project is a study of whether or not Quality Circles exist or can exist in existing school climates. The focus is on the high school and its interaction with the central administration. The reason is that high schools have a strong departmental constituency, creating a strong
sense of functional identity which demands more attention from an organizational viewpoint.

At first, we are looking to see whether or not Q-Cs are a formal part of the operation. If Circles are a formal part of the school management procedure, then we want to look at how the participants feel about the process, to check whether or not the participants are comfortable with them. Afterwards, if Quality Circles are not a part of the formal management process at the high school, we want to determine whether or not the process that is in place has the attribute of Q-C activity.

The individuals who are targeted in this study are: (1) central administrators, (2) site administrators, (3) department heads, (4) teachers, and (5) the educational specialists who are involved in many of the day-to-day activities such as the counselors and librarians.

The advantages of this investigation for the school system are the following.

A. For those schools who officially have embraced the Quality Circle concept, the study allows them to document their attempts to the public.

B. For those schools who officially have embraced the Quality Circle concept, the study allows the administration to double check on the procedures used to establish the appropriate climate.
C. For those schools who officially have embraced the Quality Circle concept, the study allows the administration to ascertain the degree of satisfaction that the participants have with the operation of the Circle.

D. For those schools who officially have embraced the Quality Circle concept, the study allows the administration to find out if there may be a perceptual problem which could be identified to be a potential issue if unattended.

E. For those schools who have not officially claimed the use of Quality Circles, the study will enable the administration to ascertain whether or not this may be a plausible alternative for the future.

F. For those schools who have not officially claimed the use of Quality Circles, the study can identify whether or not their current managerial procedure has many of the guidelines which define the presence of Circle activity.

G. For those schools who have not officially claimed the use of Quality Circles, the study allows the administration to see the perceived "worth" that teachers have of their committee-related activities.
THE STUDY:

A forty four item questionnaire is to be given to the target groups specified above. The responses will ask the respondent to (1) identify the individual's position in the school, and their years-of-service in the school at their current post, (2) to ask them whether or not they officially have heard about Quality Circles, (3) identify the respondent's perception of the overall school climate, and (4) identify the respondent's perception of the participation and use of committee activity. The answers will vary from demographic data to "yes" and "no" responses to personal opinions on the frequency of occurrences.

The time involved in answering the questionnaire should be between fifteen to twenty five minutes. The instrument itself is a scanner sheet that simply asks for specific responses. It can be administered in one day and picked up on the next. Intrusion time should therefore be minimal. Ideally, all site administrators, teachers, and educational specialists who the principals identify as being an important member of the school's decision making community should respond to the instrument. Also, all central administrators will be asked to complete the form.

Fernando F. Padró
University of Arizona
Secondary Education (Teacher and Teacher Education)
LIST OF REFERENCES


Callahan, Raymond E. Education and the Cult of Efficiency. Chicago; University Press, 1962.


Imel, Susan. Quality Circles: Implications for Training. Overview: ERIC Fact Sheet No. 24. Columbus, Oh.; ERIC Clearinghouse on Adult, Career, and Vocational Education, 1982. ED 237 810


International Association of Quality Circles. QC Sources. Cincinnati; IAQC Press, 1983.


Lilly, Edward R. "Quality Circles and Organizational Change in Educational Administration". ERIC Document, July 1985. ED 258340


Savage, Grant T. and Richard Romano. E-Quality in the Workplace: Quality Circles or Quality of Working Life Programs in the U.S. ERIC Document, April 1983. ED 229 818


