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The Limits of Laissez-Faire as a Socio-Technical Change Strategy¹

Over a period of 10 years, from the late 1960s to the late 1970s, some 70 projects aiming to improve the quality of working life (QWL) involving the use of semiautonomous work-groups were carried out in several locations of a diversified manufacturing concern of considerable size.² By the time the recession of the mid-1970s was over, almost all of these projects had faded out. It was widely assumed in the corporation that the recession itself was the main cause of the fade-out; work-groups had been dismembered beyond remedy by bumping and layoffs. One or two executives in central personnel were not so sure that the explanation was that simple and asked us to conduct an independent inquiry into what had happened. They felt the findings might help them to determine what policies might best fit the needs of the 1980s or even beyond.

We were given access to the extensive documentation that existed in the company concerning these projects. We paid field visits to the seven locations involved where, in addition

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to work observation, we carried out an interview survey and held group discussions with senior plant managers, general foremen, foremen and workers on the background of a comprehensive questionnaire. Between 600 and 700 workers had participated in the projects, some of which were large, that had taken place at these locations. As a result of the visits, during which we interviewed 100 employees evenly split between management (including supervision) and the work force, we compiled analytical reports on each site, which we checked out with those concerned on a subsequent visit. At this time only two of the projects were still active and, soon afterward, one of these was terminated. The only remaining active project was different from the rest in that it was a greenfield site, a small quasi-independent operation designed from the beginning on socio-technical principles. The projects that faded out all represented attempts to introduce work-groups piecemeal into existing work establishments.

Several levels of skill, including white-collar as well as blue-collar personnel, were involved throughout the work-group projects. In almost all cases, some improvement took place, even if slight. In a number of cases the degree of improvement was considerable; in a few, substantial. Usually, work-group projects were initiated in their own areas by interested line managers in order to obtain better results in situations which had sometimes become critical. These managers had learned something about the promising results obtained in many industries with forms of job enrichment involving semiautonomous work-groups. They wanted to find out if they, too, could secure improvements. They made full use of central personnel as internal consultants. By and large, the efforts they made, though thoroughgoing, were individual efforts. There was little active support at the plant manager level or active interest on the part of senior management above plant level. Foremen varied in their reactions. Team members were usually

positive.

The Locations Perspective

Isolated Projects

The first semiautonomous work-group emerged during 1967 in the engineering development group at *Location A*, whose manager gradually gave extended responsibility to a group of nine draftsmen who evolved into full-fledged designers. The experiment was successful. The groups persisted for four years until the manager left in 1971.

The development group project was concerned with transforming a group of draftsmen from detailers into designers. The manager believed that this was necessary to secure economies and increase productivity and, as far as possible, the capacities of the draftsmen. More than 90 percent of the assignments came to be handled by the them, leaving the engineers free to concentrate on large projects and theoretical work. Occasionally, an individual would lack the creativity or was too inflexible fully to make the required change. Individual differences therefore had to be taken into account.

A change in management style to a more participatory mode was entailed, with the manager no longer acting as a "boss." The project began in the "job enrichment" tradition but transcended it in that there was the involvement of the entire group in unit activities and an explicit change in the nature of the managerial role toward a participatory mode. The change in job content was major and involved an altogether higher level of responsibility for group

members, continuous learning about larger organizational issues, interpersonal relations and ways to improve the work-group's performance. In one case, patents were filed for a design developed by the group. The union did not object to these projects and was viewed as informally cooperative.

The same concept was extended to a wire shop, a model shop and an optical shop where the program cut operating costs drastically and improved morale and productivity. The designers filed only two grievances on matters that were quickly corrected. Yet the project was allowed to lapse when the initiating manager departed in 1971.

The second project in 1969 also took place at Location A in a unit making a heavier type of equipment. It was initiated by the operations manager. A group of 12 skilled welders and fitters was given responsibility for the planning, scheduling and control functions necessary for their work. So great was their involvement that they attended a skills-improvement seminar (with their foreman) during a strike which took place soon after the team was formed. The experiment was judged "remarkably successful" by those concerned because it had changed the labor relations climate and saved 50 percent in overhead. Declining business caused the team to be disbanded in 1972. No attempt was made to restart it later.

The success of the welding team stimulated a wider development in 1971 in an area making a complex type of product at *Location B*. This occurred in a crisis situation in which the department was under threat of closure. The manager of manufacturing engineering was the initiator. Dramatic reductions were obtained in the time required to build complex products. In one case, while planned time was 1,600 hours, actual completion time had been more than 2,000 hours; this was now reduced to 1,300. In another, there was a 42 percent productivity gain. In

still another, a 30 percent productivity gain was accompanied by a 33.3 percent reduction in quality rejects.

One project led to another and a works council was formed in 1973 to cover all 60 employees in the area. Despite these successes, groups were discontinued in 1974 when the initiating manager left. The effort at Location B was a more comprehensive endeavor than that attempted at Location A and is as impressive as anything then reported in the literature concerned with a complete but small complex operation. Yet it failed to impinge on plant or higher management.

The pattern revealed by these successful initial developments may be summarized as follows. The nature of the work was complex, the workers skilled and the union cooperative, or the objections of union officers were ignored by those involved. The initiator was an interested line manager, below the level of plant manager, who was in difficulties over his bottom line. He involved central personnel in a consultative role. The projects grew in scope but were limited to the area of the initiating manager. Though they persisted, with substantial economic success, for three or more years, they faded out when he left. In organizational pattern and value base, these sporadic efforts were alien to the prevailing managerial culture.

Multiple Projects

The second pattern to appear was that of multiple projects in one plant that developed intensively over a short time period and then faded. It began at Location A. Seven groups were introduced in processing between January and March 1972 by the manager formerly

involved with the welding group. Three more groups were later added in other product areas.

These projects began to become "experiments" in a more self-conscious sense. Hard data on performance were sought, with before-and-after measures and control groups. There was a concentration on measurement. Central personnel was more prominent, though the initiation of projects by interested managers persisted. The workers tended to be less skilled. Various operations of a more routine kind began to be included.

This pattern "exploded" at *Location C*, where no fewer than 13 groups were introduced during 1972 and five more in early 1973. While almost all these efforts were modestly successful, they were short-lived.

The write-up concerning work-groups at Location A had come to the attention of the personnel manager of Location C in mid-1971. He discussed it with a member of central personnel and the shop operations manager, who had become enthusiastic about the possibilities apparent in work-groups and was beginning to implement them in his area. The personnel manager began a program of foreman training. The training consisted of role modeling in group relations skills. The shop operations manager attended the meetings, and general foremen seemed supportive and took part as group leaders in some of the off-site training. The plant manager remained neutral with respect to work-group experiments. Many foremen felt that it was the shop operations manager's idea and that it was merely one more management gimmick that would terminate when the the manager moved on. Numerous "management techniques" had been tried over the years and most had been perceived as failing--dying out within a few months.

The foremen who had been through the training were asked to volunteer to try work-groups in their areas. Only four or five did so, but their groups were regarded as quite

successful. Unable to obtain volunteers for more groups, the shop operations manager selected a number of foremen who were told to try the work-group approach.

In due course, the shop operations manager was moved to another location, and the personnel staff turned their interests to other functions. The business climate worsened, causing layoffs and bumping as well as pressures for production and reinforcing supervisors in their desire to revert to older and more comfortable supervisory styles. The groups faded.

Yet the groups had been modestly successful during their 18 months of existence. Efficiency measures were available for 11 of the 12 groups started in 1972, and the results were positive for all except one: four represented increases of up to 4.9 percent; two up to 9.9 percent; and four over 10 percent. The negative result was 7.5 percent. Measurement periods were between six and 12 months.

The 1972 program was developed with enthusiasm, which was caught in a report by the personnel manager reflecting the excitement of those leading the endeavor. He and the shop operations manager had started thinking about work-groups some three years earlier when they stood looking at the picket line, which formed religiously every day in spite of the inclement weather. They had wondered how they might motivate the employees to work that enthusiastically after the strike was over.

It is amazing that something that began so well should have ended so dismally. The interviews are retrospective and took place three years later. Yet vivid feelings were expressed and negative attitudes make a strong contrast with the positive picture in the personnel manager's earlier report.

There were widely divergent views among management as to what work-groups

were, their desirability and under what conditions, if any, they might be reinstated. The most knowledgeable person remaining on site was the personnel manager. While he was still enthusiastic about the concept of work-groups, he did not believe that it could be reintroduced successfully. There was inadequate management support, some of the foremen involved were opposed and there was fairly widespread employee disillusionment based on experience.

Knowledge about work-groups was not widespread among management, but those who were concerned with the experiments expressed a cautious optimism. As one moved to the foreman level, the sense of having had a positive experience decreased, and the range of views widened. At one end were views such as "It was a game," "No one took it seriously" and "I already had a work-group in operation and calling it a group didn't change anything." At the other end, there was at least one foreman who was enthusiastic, who supported the concept strongly in his own area and who believed that it was effective. There was also resentment expressed by some that the work-groups were imposed by the shop operations manager and, as such, they were resisted or given only reluctant cooperation. One employee's comment reflects this perception--"All of a sudden we were a work-group." The concern that imposition did take place was accompanied by a strong belief that the concept could not be successfully forced. There must be both a shared sense of the need for, and the desirability of, work-groups along with a shared sense of ownership of them.

Several employees expressed the feeling that "it was not clear what was going on. Nobody would define what work-groups meant." At best, the employees saw the work-group concept as an opportunity to "treat people like people, to be honest and open with employees, to facilitate communications, to listen to what employees had to say, to keep them

informed and to develop mutual respect."

By far the most intense responses came from a group of six women, all of whom had been members of work-groups and most of whom were long-term employees. Some indicated quite favorable experiences--"It worked for us"--and regretted the dissolution of the groups. For some, the dissolution was the consequence of their operation's moving overseas. For others there was the quite clear belief that the groups were allowed to fade out by the inaction of hostile or indifferent foremen or were simply abolished by the management when lines were reorganized.

Concerns were also expressed that the groups had a great deal more to do, including paperwork and much of the foreman's job, with no increase in pay, and that some members had to "carry" other employees who would not cooperate in group activities. In short, it would take a great deal of effort over an extended period of time to convince these employees of the desirability of reinstating work-groups. They said they would require unambiguous evidence that there was serious, significant and sustained support of the concept throughout the management ranks (particularly at the foreman level), a clearer concept of what a work-group was supposed to be and do and a long-term commitment to maintaining the groups through difficult times.

The employees compared present conditions with the plant atmosphere five years before when the first groups were started. They had found the atmosphere then very positive, supportive and pleasant. They indicated that in the past they looked forward to coming to work but now they hated to come to the plant each morning. They felt that the engineers were a particular source of difficulty; for example, "They tell you what to do whether it's right or not and

you have to do it." "They are never on the line." "They take the credit while we do the work." "They look down on us and make us feel stupid." "Even though they are often wrong, we can't correct them." Similar points were made about management; for example, "They don't come out into the plant very often." "They have no faith in the workers." "They try to push off everything they can on us." "They don't give us any support, they don't care." "We are dumb people to them." "You can't talk to the managers."

The employees during the experiment were drawn from the surrounding area, which is a small city/rural environment. They were not hard-line unionists nor a group ideologically in conflict with management. However, compared to a period three years earlier, they saw themselves in a significantly less desirable work environment. Union officials had been briefed regarding the formation of several groups. Among the officials mentioned were the president of the local and the shop committee chairman. No objections appear to have been raised.

A manager who had recently come to the location and who had had extensive experience with work-groups at Location A began to develop production measurement groups in his area of responsibility. These had many of the characteristics of the work-groups. The strategy was to get them more naturally assimilated into the area.

Those interviewed reported attitudes typical of employees whose hopes have been raised only to be dashed. They showed acute sensitivity to any suspicion of management manipulation, while the management interviewees showed the strength of foreman resentment over coercion.

That there should be those willing to try again is testimony to the durability of the

belief that there is something inherently worthwhile in work-groups. Restarting in such an environment, however, is clearly more difficult than starting where such past experiences have not taken place.

The pattern of multiple experiments exploded with even greater intensity in *Location D* where, between the spring of 1973 and the fall of 1974, 19 work-groups were introduced. For almost all of them, some degree of success was reported. Yet, as at Location C, they faded.

If their demise was linked to the recession, our interview material suggests that the negative character of the organizational context was also relevant. An organizational climate survey had been carried out to explore attitudes concerning work-groups and greater employee participation in decision making. Most of the 21 general foremen and 71 foremen taking part were negative in varying degrees. No systematic attempt was made to deal with these attitudes.

The Location D effort was the most deliberately experimental of the programs. Sophisticated attention was given to research design despite rough operational conditions. Measures of results obtained were numerous and rigorous, putting an extra load on foremen. Control groups did not know that they were control groups, even when under the same foreman as experimental groups. There was no lifting of the pressure for production while the groups were finding their way and settling in.

A resident consultant from central personnel was much in evidence. He was there at the request of the plant manager who, like the other managers mentioned, was looking for new ways to improve performance in a situation that was no better than marginal from an economic point of view. He was familiar with what had happened at Locations A and C.

Location D was the first plant at which initial interest at the plant manager level was reported. With his sanction it was possible to conduct experiments in all areas of the plant. This showed that semiautonomous work-groups could make improvements under a wide variety of technical conditions. The plant manager, however, did not continue to give the support he provided at the beginning. He was too preoccupied with the immediate economic problems of the plant. Sustaining the groups once they were established would have taken time he did not have. A lot of additional work was created for foremen through extra record keeping and training. The needs of the groups did not fit in with many traditional operating procedures and measurement practices. New problems of compensation began to emerge. The problem of coping with these wider issues was too great given the immediate operational pressures which worsened as the recession deepened. The projects, therefore, remained too much under the "ownership" of the consultant, despite his assiduous attempts to transfer this ownership to management.

After numerous interviews at all levels, it became evident that the primary process problems during group operation were found at their "boundary," to some extent with the group's links to upper and to lower levels, but primarily at the interfaces with support groups--maintenance, personnel, materials suppliers, work planners, instructors and timekeepers. Because these units did not take part in group goal-setting efforts, were not included in group meetings and were not evaluated along with the groups, they had little reason to respond in a timely manner to group needs. Group members were allowed to contact these units directly, but several respondents indicated that these support units sometimes continued to deal exclusively with the foreman rather than with group members.

Location D was the first nonunion plant in which work groups were tried. There is, however, little evidence that unions were serious obstacles to the formation of work-groups at any of the unionized locations. There was a surprising amount of cooperation by the stewards directly involved, even when there were misgivings or outright objections by other union officers. Improved performance from group methods would help, they hoped, to keep jobs that were threatened.

Management preference on the sites studied was to proceed with a minimum of formality in order to avoid raising difficult issues with the bargaining unit. This was in keeping with the way in which projects arose in the areas of interested managers rather than through a plantwide effort which would bring the union committee as a whole into play. Nevertheless, the emergence of a works council at Location B represented a move in the direction of more formal labor/management cooperation in the areas of quality of working life and productivity.

Location E was a twin plant site where eight work-groups were rather rapidly introduced during 1974 in the packaging areas. Each foreman had between 50 and 80 people under his control and the areas were considered "problematic." The packing area jobs were all entry-level positions, the work force was young and the employees had short service. There was a constant flow of workers, high turnover and constant bumping. The work load was dictated by the production rate of the rest of the line. The workers were expected to pack whatever was produced.

Entry areas of this kind, where the work is entirely unskilled and where exposure to disruption of all kinds is greatest, are not auspicious sites for work-groups, especially in an inaugural phase. Management apparently had little idea of what it was getting into and had no

strategy for assessing the conditions needed for success. There was some training of foremen in terms of role modeling and team building, but this was done in parallel with the setting up of the work-groups rather than as a preparation for them. Group members were not offered training.

Groups were introduced on three shifts in the packing area in one plant and on two shifts of a similar area in the other. In one plant the majority of the first shift favored the group approach, but the union steward encouraged resistance. This was due to an antagonistic relationship he had with the shift foreman. When a new foreman was assigned to the packing area, a group approach was reintroduced at the initiative of the employees. Following a series of meetings, several work changes were initiated, and a trip was made to the other plant, which had what was considered to be a more organized packing area. Following a shutdown, there was a 50 percent turnover. This, together with a series of drug problems, brought the group approach activities on this shift to a halt.

Acceptance of the group approach was better on the second shift and enthusiastic on the third. Meetings were held for several months. However, the activities of these two groups also stopped after a shutdown and the high turnover (70 percent on the second shift) that followed.

In the other plant, work-groups were introduced in January 1974 in the packing area on both shifts. During the initial period of two to three months, one team worked well. Better cooperation between incentive and day-work employees was noted. There was greater autonomy and participation; cooperation was in evidence in a new arrangement of the packing area. According to our interviews, however, these gains were short-lived. After start-up, the groups experienced a number of "personality clashes" as older and younger workers were brought

together under the bidding system. Group activity faded under strict work-rule adherence when bumping brought an infusion of higher-seniority workers into established groups; nor was the piecerate system conducive to a more cooperative group model.

There was little reference to any training. The comments were that whatever was done was not very successful. The members themselves were seen as generally cooperative, especially in the beginning and on two of the shifts. One shift was considered very problematic: it was a young, antagonistic work force with poor work habits and a lot of absenteeism, and it was "very much into drugs." This latter group did begin to develop as a more disciplined, cohesive team after a foreman change. This was a promising result considering the poor quality of the group. However, by then layoffs, plant shutdown and turnover had decimated the original group.

Location E represents the most extreme case of the introduction of work-groups in a negative organizational context, at an inauspicious moment. Management appears to have regarded the groups simply as tools to be "slotted in" wherever convenient--where they might help out with one or two immediate headaches. The work-groups at this location were begun when the phase of multiple experiments had already passed its peak in the other locations and when the disruptive effects of the recession were already in evidence. Groups started under these circumstances at an inexperienced site had little chance of surviving.

Yet the groups themselves were promising, despite personality conflicts in two teams and poor timing for their introduction in another. The disrupting forces were largely external. Realization of this seemed to be the basis of the not altogether unhopeful attitudes of the respondents concerning restarting teams under more settled conditions.

This pattern of multiple projects, intensively developed at one site only to fade after some 18 months (even though moderately successful), suggested to us that the laissez-faire approach adopted contained a strategic error. There was no systematic organizational support, no preparedness for systemwide implications, no working through to an overall concept to which plant management as a whole could become committed. The failure to persist of these economically successful, intensive, multiple experiments represented to us the limits of laissez-faire as a change strategy.

A Training Framework

The projects so far described were initiated under conditions of strain as regards maintaining production at an economic level. In some cases, the economic situation was one of crisis. This was apart from the recession, which came later. It constituted a main reason for the initiating managers to try something new and for the workers to cooperate to preserve their jobs. But *Location F* was expanding in 1972 when work-groups were started. The need was to take full advantage of a positive business opportunity. This also provided a situation which could encourage innovation.

What was done differently at Location F compared with other sites was to embark on a management training and development program before work-groups were introduced. This went considerably beyond the "role training" offered to foremen at Location A and elsewhere. Not only foremen and general foremen but management personnel above this level were included. In three years, no fewer than 150 members of staff went through a 13-week program

(three hours a week) designed by an external consulting firm. The introduction of work-groups was not delayed until all 150 staff members had completed the program.

The aim was to change managerial style toward a more open and participatory mode. Such a change is consonant with the philosophy of work-groups. The scope of the training program indicated a not inconsiderable management interest for moving in this value direction. It provided a wider support base than existed on other sites, even if this was not so throughout the entire plant.

Another difference was that Location F did not follow the pattern of rapidly introduced multiple experiments. Only two groups were formally instituted. A third had spun off naturally and was not known as a work-group. The training program also led quite a number of foremen informally to allow their teams considerable freedom of a work-group type.

No attempt was made to secure elaborate measures, which were a strain to collect; to insist on control groups, often difficult to identify; or otherwise to create a climate of self-conscious experimentation. The process was one of slower and more natural assimilation.

The problem was to discover why the rate of diffusion was not faster. Three years is a long time. At one point the union was the obstacle. This inclined management to keep the work-group idea implicit and to rely on the training of the foremen to work things out informally.

Yet, for one group, output was up 31 percent and rejects down 37 percent in the first year. This has been maintained with several innovations. In the other group doing sophisticated work with nonexempt personnel, overtime was reduced from six to three hours a week for the whole of the first four and a half months of operation in the new mode, with two members off sick. In spite of this the groups were allowed to die.

Something more is needed than either the pattern of multiple experiments or the training framework provided. In the first instance, intensive development of multiple experiment failed to arrest fade-out. In the second, extensive preparation through a well-designed training program failed to occasion widespread diffusion.

A Greenfield Site

This location represented a development of a different kind. It was a new plant (1973) designed from the beginning on work-group principles with an organizational structure and management philosophy consistent with them. Though a very small operation (less than 100 personnel in all), it was an entity in itself. This is a very different situation from being a component in a larger established operation. That it should have been brought into existence at all suggested that, for the first time, someone in the line above plant level had some interest in testing (in the comparative safety of so small an operation) the validity of moving toward the full organizational alternative now available to the conventional manufacturing setup. Yet some anxiety was voiced concerning future support from management above plant level. All personnel were salaried, the management structure was "flat," specialist staffing was minimal and far-reaching responsibility had been delegated to the groups. Like a number of other new plants set up along innovative lines in the United States, it was nonunion. There are, nevertheless, an increasing number of cases in which unions have participated in the design of such plants.

Location G weathered its own start-up and survived the recession. It outperformed a sister plant that is older and more conventional. People said they liked working

there but they were, of course, the kind of people who like to work in this way, as were the managers who had chosen to develop the plant along these lines.

A relatively large and heterogeneous manufacturing corporation cannot depend too heavily on the odd new plant it sets up from time to time in order to discover its preferred organizational path into the future. It seemed significant, therefore, that small steps were being taken spontaneously to restart work-groups--at Location C, for example, where a good deal of participation had continued informally. Moreover, one or two managers formerly associated with work-groups appeared to be intent on introducing them in other locations where they were now working. Interest in setting up such groups "when the time was ripe" had been expressed by three small plants. The supply of initiating managers had far from dried up. Such managers were beginning to comprise a network of increasingly experienced individuals who, though dispersed, remained in informal contact.

Despite severe setbacks and the phenomenon of project fade-out, the work-group concept had survived the recession.

Interview Survey Perspective

This perspective treats the findings of the interview survey as a whole across all sites (except one which was not available for interview).

It was important to interview management members as well as work-group members--not only the foremen directly involved but also general foremen and plant and personnel managers. Roughly equal numbers of the work force and management were

interviewed in a sample of 100. Some nongroup members were included as their perspective also was relevant. Though Location D was overrepresented, it is doubtful if this is unduly distortive.

The 80 questionnaire items are grouped under headings which describe six broad areas: program design, implementation, internal processes, support, evaluation and termination. Managers were interviewed individually, while members of the work force were sometimes interviewed in groups with a member of the research team first taking the group through the questionnaire, then discussing matters arising with them. With managers, this type of discussion took place during the administration of the questionnaire.

The level of cooperation among the interviewees was high but their experiences of work-groups were "cold"; the groups had ceased functioning two to three years previously. Not unnaturally, since the experiences were being recalled from so far in the past, some respondents could not answer a number of the questions. Also, there were those who did not feel able to express an opinion on some of the broader issues. This was particularly true of work force members. Therefore, varying numbers gave answers though most respondents answered most questions.

For the present analysis, the four points of the scale have been collapsed to two--those agreeing and those disagreeing. Each of the six sections is introduced by an overview statement. The questions pertinent to the section are then given, along with the number of respondents agreeing or disagreeing. A short commentary is added which makes use of the qualitative material. A correlational analysis was carried out, but due to the small numbers and the dubiousness of assuming normal distributions, the results are inconclusive. Therefore, it has

been omitted from the present discussion.

Despite the limitations of the data, the interview survey discloses a number of important findings and a great deal of suggestive material. It gives a picture of how work-groups were experienced by those who took part in them or were closely associated with them in a managerial capacity. Under the circumstances, the extent of the recall is remarkable, as well as the strength of the views and feelings expressed, leaving no doubt as to the impact of work-groups on those who had experienced them or the importance that they attached to the concept. This picture complements that obtained from site visits that is described in the first half of this paper. Many of the views commonly put forward in the literature were voiced by this group of operating people, who between them seemed to have learned the alpha and omega of work-group functioning. Too little of this knowledge and wisdom was used by those responsible for initiating and running the programs. The corporation did not know of the wealth of experience that had been built up. The process of organizational learning had scarcely begun.

Program Design

Strong views were expressed concerning the principles on which work-groups should be designed.

Voluntarism. Involvement in work-groups should be voluntary. Nothing good would come out of attempts to force people to participate.

Selectivity. The best strategy is to select suitable areas rather than to proceed plantwide from the beginning.

Diffusion to the whole plant. On the other hand, there was concern about experimental groups becoming privileged, especially in the work force where any form of divisiveness is feared. The prospect of diffusion to the plant as a whole should be kept under consideration from the beginning. Ultimately, having part of a plant on work-groups and part not is likely to produce difficulties regarding equity.

Inclusion of management in evaluation. Plant management and general foremen as well as foremen and group members should be considered as part of a total effort. Therefore, the performance evaluation of these higher ranks should include a judgment on how well work-groups within the scope of their responsibility are doing.

Payment. Additional pay for group members as compared with nongroup members was not recommended. Special pay would give rise to envy and jealousy and would be disruptive. However, pay schedules should be sensitive to employees acquiring new skills and be adjusted accordingly.

Sharing in savings. When productivity increases or cost savings are obtained, the benefits should be shared between the company and all employees concerned--both workers and management--and on a plantwide basis.

Recognition of individual performance. Though work-groups focus on group efforts, the individual needs to be recognized too. Contributions to group are often differential.

Allowance for group differences. The differences in performance among work-groups tend to be considerable. This must be accepted. It means that no program can remain uniform.

Implementation

Implementation is concerned with how well the program design is placed in operation within the actual workplace. Some principles stated were:

Training. The amount and adequacy of training given key participants (unit workers, foremen, general foremen and others) on group concepts and processes were viewed as critical. The training needs of foremen and group members were also significant concerns. While perceived as adequate, the training of foreman was, upon closer inspection, uneven and too short, according to the interviews. Group members' training was seldom provided, although it is crucial if truly effective groups are to develop.

Feedback. Provision has to be made for adequate feedback to group members and management (i.e., methods for providing information about group performance). Effectiveness has to be periodically checked and reported to group members if motivation is to be maintained and corrective actions taken.

Site selection. The selection of appropriate work units and plant sites is a key

factor in long-term success.

Goal clarity. Clarity of both management's and the group's expectations (goals) regarding the use of work-groups is essential for success, as is their congruence and compatibility.

Start-ups. Start-ups were felt to have been rather ineffective. While there was agreement that group-member selection and site selection was good, greater attention to these factors would be needed for future efforts.

Group meetings. Interviews indicated great interest in ways to improve group meetings; the inclusion of support groups in these meetings is one way of improving them and the development of group skills another.

Performance. Additionally, while management felt that they had adequate information on group performance, work-group members believed that they themselves did not have adequate information on results. In terms of group goals, there was much greater agreement that goals were clear. Work-group performance was perceived to be good by twice as many respondents as those who felt performance was not good.

Internal Processes

This area is concerned with internal group activities and attitudes toward these activities. The adequacy of group meetings, the attendance of key "others" (general foremen, management, support units and so on) and their roles in these meetings were key elements. The importance given to goal setting, the level of conflict (internally and interunit) and the level of

interest in groups once they had been operating for a while were also stressed.

One of the most important findings of the entire study was that it is essential for both short-term and long-term group effectiveness that support units, such as maintenance, be included in group meetings. Also, management's role in regulating and smoothing relationships between units needs to be more explicit. Management should also be willing to alter plant rules and policies that inhibit the functioning of work-groups. This was rarely done.

Many people lost interest in maintaining their work-groups once they had operated for a while. This was said to be caused by unresolved problems such as:

- constraining rules and regulations;
- "support units," such as maintenance and engineering, that did not support the groups;
- feelings that the commitment and support of management were diminishing;
- poor communication horizontally and vertically.

These were all external constraints. Work-groups did not often break down for internal reasons. It was said that there was little inter-member conflict and excellent group spirit, and that group meetings were open and on the whole constructive.

Some operating principles suggested were:

Line management involvement. Successful work-groups cannot, it was said, be solely promoted by the personnel department. Line management has to be directly involved in monitoring, evaluating and helping to solve problems.

Group meetings. Provision of a place and sufficient time to hold meetings was regarded as essential. A minimum level of group skills for members is "a must."

Group decision making. Decisions directly affecting a group should be placed before it to get advice and, when possible, a solution. When this is not possible, the reasons why a decision affecting the group was made should be provided.

Role clarity. A clear understanding of each member's role, the foreman's role relative to the group and the place "others" (management, support units) have in supporting the group was regarded as essential.

Inclusion of others in meetings. There is a need to include foremen, general foremen, management and nongroup members (e.g., support units) in group meetings with varying degrees of frequency to share information and solve problems at an inter-group level.

Lateral Communications. Communications among groups, group/non-work-group units and foremen allow information and new idea sharing. Ways to encourage these types of communication need to be created.

Support

This area is concerned with how much underlying support there was for the work-group idea. The majority of respondents believed, despite all the obstacles, that work-groups were feasible in their locations and that with some effort they could be maintained. This latter belief was one of the most emphatic opinions given in this inquiry. It implied that the basis of underlying support did indeed exist, while the termination of most of the groups indicated that the support was not effectively mobilized. Some of the key constraints have already been listed;

they were in the organizational context rather than in the groups themselves. Respondents felt that as one went up the management ladder the clearness with which support was offered diminished. This confirmed the answers to corresponding questions in other sections.

An emphatic opinion was that management's attitude to work-groups should be thoroughly assessed before any program was embarked upon. If management acceptance and commitment were not obtained, the work-group concept had little chance of success.

People thought of support in two ways:

- as commitment to work-groups because of their inherent benefits and the chance they offered workers for a more active involvement in the organization;
- and
- as interest in work-groups solely because of their positive effects on productivity.

Work-group members and foremen tended to interpret support in the first sense; general foremen and management tended to interpret it in the second sense. A basic misunderstanding about the goals and purposes of the programs usually existed between higher and lower levels. These attitudes were not irreconcilable. In the long run, a successful program depended on their reconciliation.

Three important principles surfaced regarding support:

Creating support for work-groups. Acquainting work units, foremen and management with the benefits of using work-groups should be undertaken through training programs, discussion with others with group experience, films and so on.

Commitment to the work-group idea. Assessment of tangible, long-term support must be made before implementation. Voluntary adoption of the group mode by a work unit is one sign of support. The commitment of resources (time, money) is another.

Maintaining support. More than just commitment is needed to keep groups viable. Ongoing training, timely, adequate feedback on performance, clear goals, and role clarity for those involved are also needed. Rewards for goal accomplishment and incentives for participation need to be present and explicit.

Evaluation

Evaluation addresses the types, source, frequency and effectiveness of the measures of performance used by work-groups. In addition, this dimension includes a set of questions about changes in work behavior and attitudes associated with the work-group program.

The perceptions of the respondents with respect to work-group performance measures revealed a great deal. For instance, a majority of respondents felt that performance criteria were clear, although 39 percent felt they were not clear. There was a decline in these feelings about measurement clarity from the management level to the work-group level, which indicated a problem in maintaining communications down the line. Management and supervisory levels felt that group members knew how well they were doing better than they did.

Supervisory levels felt they were communicating feedback to a greater extent than members were receiving it. There was, as a result, little association between how clear respondents perceived the performance measures to be and how well they perceived themselves to be functioning.

Respondents perceived the same types of performance measures as those being used. Emphasis was placed on the standard economic measures, such as productivity and efficiency, scrap, absenteeism rates and quality control. What may be an indication of a participative attitude was the fact that two or more levels appeared to have determined these measures. The respondents disagreed on how often these measures should be taken. Performance was apparently assessed with varying frequency and emphasis. The actual measures were regarded as good.

Three important points to consider regarding evaluation are:

Criteria development. Group members, foremen and management should develop performance criteria collectively; ownership of the measures and results would thereby be shared.

Feedback. An important part of evaluation was providing results to the groups. Feedback must be timely and constructive. Thought should be given beforehand, preferably when criteria have been developed, as to how this information was to be provided.

Inclusion of others in evaluations. Survey results indicated that other individuals

and groups (foremen, general foremen, management, support units) should be included in work-group evaluations. How this might be done could be negotiated with these individuals and groups. As noted elsewhere, evaluation of individual performance in terms of contribution to the group effort is also needed.

Termination

This area is concerned with the perceptions of respondents in regard to the reasons why the groups stopped functioning, how they felt about termination and what they felt would be necessary for the groups to be started up again.

A number of important observations from the data can be made. Three out of four respondents, especially at lower levels, did not want work-groups stopped. Interview material showed that layoffs and personnel changes were not the only reasons why groups terminated. In many instances the teams simply "fell apart" after a while. They did not receive the ongoing committed interest and effort that they required if they were to be assimilated into the fabric of the workplace. This effort and interest diminished after a period of initial enthusiasm. Yet most respondents stated that they would like to have the teams started up again. Given what we believe to be moderate levels of success overall, this response illustrates the viability of the work-group concept and its ability to gain and maintain broad-based support.

Several foremen felt caught in a bind. Two sets of objectives that could not be satisfied simultaneously were being communicated to them from their superiors:

- get the work-groups functioning;
- maintain performance levels.

This placed a considerable burden on the foremen since an additional set of responsibilities (establish the groups) was added to their regular duties (performance maintenance.) Several foremen felt that they were receiving neither the moral nor the resource support to address effectively this new set of demands. Moral support--interest and involvement in the functioning of the groups--did not come from their superiors; resource support did not come from equipment, maintenance, personnel, suppliers of materials or plant planners.

Many respondents felt that, initially, there was much enthusiasm for the program among group members but that their interest declined as the program continued. Other experiments with work-groups have shown that, over time, the groups increase employees' autonomy, participation and interest on the job. The combination of the two factors noted (lack of moral support and lack of resource support) was a major reason for the attenuation of interest in sustaining the groups and brought about their dissolution. The difficulty in establishing a new work structure without the support that was seen to be required made people give up and programs fold.

Finally, what would it take to start the groups again? Respondents seemed confused on this point, but clearly there was a need for commitment from management as well as from workers themselves. The interview survey suggested the following requirements:

- A clear and coherent program design.

- Thorough preparation of management and training of foremen and group members.
- A selective implementation effort.
- Continued, concerted management support.
- Plantwide diffusion of new concepts and ways of operating.
- Some special assistance from inside or outside the plant at the group and foreman levels during implementation and periodically thereafter to develop skills.

Further Developments

A Corporate Review

During the fall of 1978, a review of the material summarized in this chapter was held at corporate headquarters. Four functional vice-presidents were present as well as a number of other staff people. No line managers were present, however. Half a day was set aside to consider whether a new beginning should be made with work-group projects with explicit corporate support or whether it would be best to remain inactive or even to discourage fresh attempts.

The findings occasioned considerable interest, as few of those present had been aware of the extent of the group activities that had been taking place or of the positive results obtained, more often than not, in spite of the tendency of the projects to fade out. The location

perspective suggested that, if work-groups were to be started again in the laissez-faire manner that had characterized them in the last 10 years, they would in all likelihood fade out again. The perspective of the interview survey suggested that, if they were restarted in a more strategic manner, with corporate support, the wealth of experience about the do's and don'ts that had been accumulated by the managers and workers immediately concerned would provide a solid foundation on which to build the type of future effort that could become self-sustaining. A persistent belief in the potential benefits of work-groups, both for job satisfaction and productivity, lingered in a number of participants (especially the workers) despite the vicissitudes and disappointments encountered.

We suggested that the work-group by itself was too small a unit to bring about lasting organizational and performance improvement. The data made it plain that all the systems of an operating plant, or similar self-standing workplaces, were involved in one way or another in work-groups. The organizational context had to change at the same time if the enduring results for job satisfaction and productivity possible through semiautonomous groups were to be realized. This implied the working out of a new philosophy of management based on participative principles in which each level within a plant would have to some extent to redefine its role as regards the others. A number of operational practices, control systems, measurement procedures and reward systems would also require modification. A new type of cooperative relationship with the union would have to be evolved in areas not previously thought to belong to labor relations. Work improvement through QWL had to be envisaged as a long-term effort. For plants to be secure in venturing along this road, they would have to know that there was stable commitment to it in the corporation above plant level.

Many of those present were inclined to accept these views at least to some degree. Work improvement through QWL was indeed a long-range strategic undertaking requiring a large investment of management time and energy and a large investment in the training and development of the work force as well as of those in the supervisory and plant-management ranks. This was a daunting prospect. The company, some of those present pointed out, had other formidable priorities in the technological field regarding new products and new manufacturing processes. The changes entailed would strain the capabilities of operation managers for the foreseeable future. These managers could not be asked to undertake a major parallel task, especially as their views on QWL were contradictory. The company's systems of management practice, they said, had stood the test of time and, in labor relations at least, both sides knew where they stood.

Several leading corporations had been evolving large-scale programs in QWL in the last few years. "Let them do the pioneer work," was a view advanced by some strong voices. "We'll hang well back in the pack watching what they are doing and learning from it. Then, if and when the time is ripe for us, we'll mobilize the very considerable internal and external resources we can command and move forward quickly on a wide front."

Though this was not a decision-taking meeting and there was a wide range of opinion, it was apparent that no one was about to make any policy proposals to get QWL supported at the corporate level. No formal encouragement of QWL projects was to be expected for the present from those in high-level staff positions, whatever their personal view. Any prospect of corporate sanction seemed a long way off.

An Innovative Affiliate

Nevertheless, this meeting did not signal the end of work-innovation projects even in the shorter run. A supporter appeared in a high-level line manager. The chief executive officer (CEO) of a large affiliate, which did more than 2 billion dollars of business a year and which had considerable autonomy, took up the challenge. He had been convinced for some time of the importance of the value changes taking places in the wider society, especially in the attitudes of the younger generations entering the work force. He was preoccupied with the need to press forward with organizational as well as technological change if the involvement and commitment of employees at all levels were to be obtained. He regarded this commitment and involvement as essential to assure the levels of innovation and productivity he deemed necessary for the survival of the business in a world of increasing competition, complexity and uncertainty.

He had appointed one of his senior vice-presidents to make a critical assessment of innovative projects across the whole field of human resources in North America, Europe and Japan. The first author of this paper met this vice-president at an intensive QWL workshop and was invited to work out with him a strategy for assessing the willingness and preparedness of managers in the affiliate to undertake projects in work innovation. The vice-president felt it was essential to start with the senior executives, functional as well as operational, around the CEO, but he did not think it would be appropriate to begin with a meeting of these key individuals as a group. They were not ready for it. Accordingly, the first author held long, unstructured interviews of two to three hours with each of the 12 most senior executives.

These interviews disclosed a widespread awareness of the situation described by

the CEO, a willingness to move in a direction which would integrate the human and technical needs of the enterprise, but very great differences in their beliefs regarding whether it was appropriate for them to do so in the immediate future of their own businesses. Some had all-absorbing priorities in products or markets; others had a union which was implacably adversarial and had just elected a new leadership of the same kind; others had too many managers of the old school to want to proceed very far until more of the younger generation were in positions of greater responsibility. Yet the conviction was general that QWL was the right direction in which to move in the longer term.

In a report to the CEO, the first author suggested a strategy of selective development in contrast to *laissez-faire*. *Laissez-faire* had failed in the corporate parent and the findings were discussed in the report which the CEO circulated to his own senior managers. To assess the acceptability of the new strategy and to begin to define its operational meaning, the CEO asked each of his two group vice-presidents to hold meetings in retreat with his senior managers. Each of these meetings was scheduled for a day-and-a-half. The CEO himself would attend as required, as would the first author.

These meetings confirmed the need to proceed with work innovation, whether called QWL, some other name or no name. Each senior manager would be responsible for developments in his own area. The method was adopted of listing the constraints and opportunities in each section of the business. Through this, an attempt was begun to identify specific criteria for site selection. When a site seemed appropriate to senior management, the question of its desirability and feasibility would be taken up with local management. Nothing would be forced. Only if there was a genuine wish to proceed on the part of local management

would action steps be taken. Then the question of involving the union would arise in those plants that were unionized.

More internal resources would have to be developed. One of the ablest of the younger plant managers and one of the ablest of the younger personnel managers, both of whom had begun to accumulate experience in this field, were appointed to nourish developments in work innovation throughout the affiliate and to assist selected sites.

As regards external resources, one independent center and one university center have been involved, together with a consulting firm with special experience in the problem solving methods which have been developed in Japan.

During 1979, two projects were launched, one of which has survived severe market vicissitudes. Both have now become substantial, and a third project has been started.

These and other projects in this affiliate, and emerging endeavors in other divisions of the corporation, are picking up the efforts of an earlier network of activist managers. How they fare will constitute the story of the eighties as distinct from the story of the seventies with which this paper has been concerned. It will reflect the growing strength of the QWL enterprise worldwide as evidenced by the international conference on "QWL in the '80s" held in Toronto at the end of August 1981.

The economic climate has indeed changed. Improvements in productivity have become imperative, but we now know that employee involvement and commitment--desirable for their own sake--are essential for the achievement of such improvements. At the first annual conference of the Philadelphia Area Labor/Management Committee, held in November 1981, Rex Reed, the vice-president for labor relations and corporate personnel of Michigan Bell, put it

this way in his keynote address: "The time has come to change the managerial culture of America"--to one of participation and power sharing.

The case reported in this paper shows some of the complexities of trying to take the first steps toward this basic cultural change in an endeavor in which every corporation must find its own path. A great deal has been learned, even if there is still more to learn. Meanwhile, the more experiences of what has so far taken place that are publicly shared, the more rapidly will organizational learning accumulate in industry as a whole.