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WORK ORGANIZATIONS

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Points to the many successful new plants that follow a participative model. This same model can be applied to traditional organizations with high likelihood of good productivity and a high quality of work life.
CREATING HIGH INVOLVEMENT WORK ORGANIZATIONS

Edward E. Lawler III

The 1970s saw the successful construction, start-up and operation of a significant number of new plants that are different from traditional plants in some important ways. These plants are different in how they are designed, managed, and in the high level of involvement that seems to characterize their work forces. The list of companies with these new plants reads like an excerpt from Fortune's 500. They include General Foods, PPG Industries, Procter & Gamble, Sherwin-Williams, TRW, Rockwell, General Motors, Mead Corporation, and Cummins Engine. Many of these organizations have started not one high involvement plant, but two, three, four, or more. At this point no one knows precisely how many organizations have initiated new high involvement plants, nor how many of them exist. A good guess would be that more than 20 large organizations have at least one, and that, overall, more than a hundred are currently in operation.

It is possible that these high involvement plants are merely an intriguing anachronism which, although successful, can teach us little about how to create more effective work organizations. On the other hand, it is possible that they represent a broadly applicable approach to management that can teach us a great deal about how we can create more effective organizations and that, as such, they are a very important social invention which warrants careful study. Before we can determine just how applicable this approach is, we need to briefly review the characteristics of these plants and then to consider what has been learned about their effectiveness.

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CHARACTERISTICS OF THE PLANTS

One of the most interesting aspects of the plants is the number of innovations common to all or almost all of them. These innovations are most interesting because of their potential for diffusion to other organizations. A review of the innovations will indicate how specific areas of management are handled in the high involvement plants and how they differ from traditional plants.

Employee Selection

The traditional approach to employee selection has largely gone by the board. Instead of the personnel departments carefully screening, testing, and selecting among applicants, a process is used that includes helping the job applicant make a valid decision about taking the job and getting production employees more involved in the selection decision.

The selection process places a great deal of emphasis on acquainting applicants with the nature of the jobs they are expected to fill and the nature of the managerial style that will be used in the plant. They can then decide whether the particular job situation is right for them. Before start-up, a group interview is held by the managers and workers who will interact with new employees so they can decide together whether the job applicants will fit the management approach that will be used in the organization. After the plant becomes operational this approach to selection continues and work-team members are given the responsibility for selecting new members of their teams. In some cases, the personnel department does some initial screening of applicants and where appropriate administers tests and checks references.
Design of the Plant and Physical Layout

Many of the plants make an effort to have at least a few members of the workforce on board early enough to participate in decisions about the layout of machinery, equipment, and the recreational and personal areas of the plant. Often employees from existing plants—many of whom will be reassigned to the new plant—are asked to participate in the design. The idea is to capture the employees' ideas and implement them to improve the design of the plant. In some cases, experts in sociotechnical system design are also called in to make certain that the physical layout is congruent with the desired social system.

Frequently a strong egalitarian approach is taken to how the work and nonwork areas in the new plants are laid out. Rather than having separate areas in which managers eat and spend their nonwork time, everyone uses the same eating, rest-room, and recreational facilities. In many plants the entrances and parking areas are common to all employees. In other words, employees all receive a clear message that at least in terms of the physical facilities and typical perquisites of office, a relatively egalitarian system exists at the plant level.

Security

Most plants are publicly committed to no lay-off policies. So far, all of them I am aware of have been able to live up to their policies by using part time employees during busy periods and by doing maintenance and other non productive work during slow periods. This policy is important because it assures people that they will not produce themselves out of a job and it shows that the company is willing to make a commitment to all employees.
Job Design

In all the plants, an attempt is made to see that employees have jobs that are challenging, motivating, and satisfying. In some cases this is done through individually based job-enrichment approaches that emphasize personal responsibility for a whole piece of meaningful work. In most cases, however, it is accomplished through the creation of autonomous work groups or teams (see e.g. Poza and Markus, 1980).

Typically, teams are given the responsibility for the production of a whole product or a significant part of one. They are self-managing in the sense that they make decisions about who performs which tasks on a given day, they set their own production goals and are often also responsible for quality control, purchasing, and discipline. Most teams emphasize the desirability of job rotation for their members, and team members are expected to learn all the jobs that fall within the purview of the team.

In some plants an effort has even been made to mix interesting tasks with routine jobs. For example, one plant made the maintenance jobs part of the same team as warehousing so that no one would spend all of his or her time on the relatively boring warehousing tasks. The end result of the use of work teams usually is that the people participating feel responsible for a large work area, experience a sense of control, and develop an understanding for a large segment of the production process.

Pay System

Most plants have taken a different approach to establishing base pay levels for employees. Instead of using a traditional job evaluation approach which scores jobs on their characteristics in order to determine the pay rates for every job in the plant, they evaluate the skills of each
individual. Typically, everyone starts at the same salary. As he or she learns new skills, the salary goes up. When this system is combined with job rotation, a person doing a relatively low-level job may be quite highly paid because he or she is capable of performing a large number of other, more skilled tasks (see Lawler, 1981).

This approach has two main advantages: It tends to create a flexible, highly trained workforce that can adapt to most changes in product demand and staffing since ready replacements are available. It also promotes the development of the work team because it gives employees a broader knowledge of how the plant operates. This is important because it enables individuals to participate in more decisions and it aids identification with the goals of the plant.

In about half the new plants with which I am familiar, decisions about whether or not an individual has mastered a new job well enough to deserve a salary increase are left to the members of his or her team. This approach to pay decisions reinforces the participative management style that is very important to the way high involvement plants are managed.

A few (but not most) of the plants have moved toward one of two approaches to tying pay to performance. Some have introduced a merit salary increase component into their skill based pay systems. A few others have introduced plantwide profit-sharing or gain sharing plans after they have operated long enough to develop a stable performance history. It is possible that as more of them mature and establish stable base periods for the measurement of productivity gains, more of them will adopt these plans. This seems likely, since organizationwide sharing of productivity gains is congruent with the team concept of management and
the general participative egalitarian principles that underlie the design of these plants.

**Organizational Structure**

One of the really striking features of these plants is their structural hierarchy. All the plants have located the plant manager only a few levels above the production workers. In some cases, the foreman's role has been eliminated completely. In others, the foremen report directly to the plant manager and such traditional intermediate levels as general foreman and superintendent have been eliminated.

Where there are no foremen, several teams usually report to a single supervisor, and the teams are envisaged as being self-managed. Most of the time they elect a team leader who is then responsible for communicating with the rest of the organization. This person undertakes the kinds of lateral relations with other functional and line departments that consume so much of the time and constitute such an important responsibility for the typical first-line supervisor (see Walton and Schlesinger, 1979).

High involvement plants also deemphasize functional-area responsibility. Rather than being organized on a functional basis (maintenance, production, and so on), they tend to be organized on a product or an area basis. Thus individuals have the responsibility for the production of something rather than for general maintenance or engineering. This system provides more meaningful job structures and creates a feeling of commitment to the product rather than to a function.

Because of the way they are structured, most plants have fewer staff and indirect labor people assigned to them. Since many of the typical
staff functions are handled by the work teams, not as many support people are needed. For example, since some scheduling is done by the teams, fewer people are needed in this support group.

Approach to Training

All the new plants place a heavy emphasis on training, career planning, and the personal growth and development of employees. This is usually backed up with extensive in-plant training programs and strong encouragement for employees to take off-the-job training, usually paid for by the organization.

There have been some interesting innovations in in-company training. For example, in some plants employees may take courses in the economics of the plant's business and are rewarded with higher pay when they complete such courses. On-the-job training by other employees is also very common and is necessary to implement the concept of multi-skilled employees. Regular career-planning sessions are also scheduled. In some plants, employees present a personal career development plan to their team members; in others, the process is handled by someone in management. As a result of the strong emphasis on training, workers develop the feeling that personal development and growth are desirable goals.

Management Style

Most of the practices I have cited are an integral part of what it means to practice participative management. Operationally, this translates into pushing decisions as far down in the organization as possible. As we have seen, in high involvement plants, production line employees make purchasing decisions, and even personnel selection decisions. When decisions cannot be pushed down, it is typical for inputs
to be gathered from everyone in the organization before the final decision is made. For example, a number of plants have delayed establishing personnel policies until the workforce has been hired and everyone has had the chance to have his or her say on what these policies should be.

Summary and Conclusions

Overall, these new plants are clearly different from traditional plants in a number of important ways. Almost no aspect of the organizations has been left untouched. The reward systems, the structure, the physical layout, the personnel management system, and the nature of the jobs have all been changed—and in significant ways. Because so many particulars have been altered, in aggregate they amount to a new kind of organization.

I must stress, however, that most plants are still regarded by both employees and management as being in an evolutionary stage. They are being modified and altered continually on the basis of experience and changes in local conditions. Thus, although it is clear that a common set of practices is being tried by these organizations, every plant and organization that adopts them is simultaneously adapting them in ways that make the management system and overall design of each unique.

It is instructive to compare these high involvement plants to the approach to management that is commonly used in Japan (see reading xx). In many respects they are similar. For example, both use groups and emphasize job security. But it would be wrong to consider them to be essentially equivalent. The high involvement plants differ in some important ways. Two of the most important are in their pay systems and their management style. Japanese organizations don't use skill based pay
and gain sharing. In addition, their management style seems to be best
described as a mixture of paternalism and consultation. They simply are
not as participative as are the high involvement plants. For example,
they use Quality Control Circles but assign them a recommendations role,
not a decision making role and they do not expect them to deal with pay
decisions, hiring decisions and with normal operating decisions.

EFFECTIVENESS OF THE PLANTS

There are almost no hard data on how effective most of the new-design
plants are. In a few cases, the plants have been measured by outsiders,
who report positive results. For example, the Topeka plant of General
Foods has been studied by Richard Walton and by Douglas Jenkins and
myself. Both studies reported low absenteeism, low turnover, low
production costs, and high employee satisfaction. I have had the chance
to study five other plants in considerable detail. I would rate four of
these as highly successful since they have negligible turnover and
absenteeism and their financial performance is from 10 to 40% better than
comparable plants. Finally, survey data clearly shows that these plants
do have highly involved and highly motivated employees.

Unfortunately, the plants which have been studied are the exception
as far as public data on organizational effectiveness are concerned.
Comparable data simply are not available on most plants. There is,
however, a good deal of circumstantial evidence that most, if not all, are
highly successful in terms of productivity, costs, and the quality of work
life. Although it is not hard proof of success, it is known that Procter &
Gamble has closed its plants to researchers and others because it believes
that it now enjoys a competitive advantage and it doesn't want to share
it.
It is also significant that most corporations that have tried one plant have gone on to try others (for example, Procter & Gamble, TRW, and General Motors). It would seem that they must be meeting with favorable results. Finally, it is interesting that the demand from other companies to visit high involvement plants is great. Some of those that allow visitors even charge for tours and still report waiting lists. Apparently the word has gotten around that these plants have obtained impressive results, and people want to see for themselves. Overall, it is too early to make a valid analysis of the long-term success of most plants. Although a few have been around for some time (seven years), most were set up only in the past two or three years. It is not too early, however, to identify some of the problems that characterize these plants.

Unrealistic Expectations

The innovative employee selection process used in many of the plants has often combined with the initial enthusiasm of the managers involved to create very high expectations on the part of the workforce. Because of the stress that the selection interviews place on challenging work and autonomy, employees not unreasonably conclude that things will be totally different from the way they are in a typical plant. They expect their work to be interesting all the time and they expect to be in total control of their work lives. When these expectations are not met, it has created problems. Typically, workers have either quit or stayed on and complained about the inconsistency between what they were told the work would be like and what it turned out to be like.

The irony is that even where this is a problem, the work situations have, in fact, offered more autonomy and interesting work than usual.
Unfortunately, this has been offset by the failure to fulfill the employees' high expectations. The solution seems to be to counsel employees to have more realistic expectations and to listen sympathetically to all problems. Realistic expectations are not easy to achieve in a new plant. Often management itself doesn't really know what will evolve and there is no existing work model for future employees to look at in order to ground their expectations in reality.

Individual Differences

People differ in their needs, skills, abilities, values, and preferences. A great deal of research has shown that not everyone responds positively to the kinds of innovations that are being tried in these plants (see Lawler, 1974). Some simply prefer the more traditional ways of doing things. In most plants the selection process screens out many of the people who do not fit the new-design approach, but some always manage to slip through. There are applicants who aren't even aware of their strong orientation toward more traditional approaches, and the group interview method may fail to identify this preference. The failure of the group approach is not surprising; group interviews are not known for their validity. The result of this mismatch in most plants has been a limited amount of turnover and the need to work with some individuals in a more traditional manner.

In some ways the problem of finding workers who fit the management style of the organization is probably less severe in the case of high involvement plants than it is in traditional ones. A large number of workers seem to want to work in this kind of situation compared with the available opportunities. Plants that have advertised for employees who
want to work in a participative environment have found themselves swamped with applicants.

Role of First-level Supervision

Probably the most frequent and most difficult problem involves the role of the first-level supervisor (see Walton and Schlesinger, 1979). In some plants, relatively traditional foremen are in place; in others, there is no first-level supervisor present in work groups, the assumption being that these groups will be self-managing or that they will elect a leader or straw boss. In still other situations, individuals have been put in as acting first level supervisors and told to work themselves out of a job within a year or a year and a half of the start-up.

In almost all instances, first-level supervisors and elected leaders have complained about a lack of role clarity and confusion about what decisions they could and could not make. Typically, they are uncomfortable with ordering and directing people, because they feel things should get done on a participative basis. But in many cases they don't know how to function as a participative manager. Often they lack the skills to help the group become a functioning team, make decisions, and work through issues. They also have a great deal of difficulty in deciding which decisions should be made on a participative basis and which should not. Foremen have ended up asking for participation on issues when they already had all the information and technical expertise that were needed to make the decision. Conversely, and perhaps more frequently, because many supervisors come from a traditional background, they make decisions unilaterally when they should involve the work team.
Perhaps the best way to delineate the problem is to point out that there is no clear-cut description of the correct behavior for a first-level supervisor in these plants. Therefore, there is no adequate training program or selection method to fit a person to this position. Training is on a hit-or-miss basis, and the failure rate for those chosen is often high. Several organizations are trying to solve this problem by developing appropriate training programs, but to the best of my knowledge, no adequate program exists. The best approach seems to be extensive on-the-job training in which a clear job definition is developed and a good deal of one-on-one counseling is provided.

Permissiveness Versus Participation

One of the hardest issues that managers in new plants confront is differentiating between permissiveness and participation. In most plants, workers have raised issues that seemed to the managers concerned to go "too far." For example, in one case employees wanted to install a color television set in a work area. The managers considered this undesirable but had a great deal of difficulty dealing with the issue. They felt that if they said no they would be violating the participative spirit of the plant. They finally did refuse, because they felt that it would harm productivity and that it represented an example of permissiveness rather than participative management.

The difficulty this group of managers had is typical of problems experienced in other plants when workers have requested unusual personnel rules and work procedures. Unfortunately, the difference between what constitutes a reasonable request for the abandonment of a rule or policy and what constitutes an unreasonable request is often unclear. There
probably is no way to deal with this kind of issue in advance, but it is
clear that when such issues arise, how they are dealt with can greatly
influence the future of the plant. Arbitrary turndowns of such requests
can destroy the participative spirit of the plant, just as quick
acceptance of every suggestion for eliminating rules, regulations, and
discipline can.

Finally, it is crucial that management not abdicate its
responsibility for what occurs in the plant. Regardless of how the
decision is made management is accountable in the eyes of people outside
the plant. This means that they have the responsibility for seeing that
the process for making the decisions is a good one and that the tough
issues are dealt with (e.g. favoritism in allocating raises, discipline).
Sometimes this means that members of management must actually intervene in
order to assure that decisions are being made appropriately. It also
means that when participation is not appropriate that they must make the
decision.

Office Personnel

Most new plants have had a great deal of difficulty coming up with
innovative ways to treat their office and clerical employees. As a
result, these employees often feel relatively unappreciated and deprived
when they look at what is happening in the production areas. They often
do exactly the same jobs they would do in a more traditional plant.
Although they may be supervised in a more participative manner, their life
simply isn't that different, even though they are often told they are in a
"new type of organization." What is needed, of course, are innovative
approaches to organizing, training, and paying people in office
situations. Some attempts have been made to improve matters—for example, by rotating employees between shipping and office jobs (an effort which was abandoned). The best solution at the moment seems to be to treat these employees as a team with all this implies.

Personnel Function

The personnel function is usually much more important in new plants than in traditional ones, and indeed, it is often the one staff function that is more heavily staffed than it is in a traditional plant. It tends to become a real stress point and requires a very different set of skills from those possessed by the traditional personnel manager. Since many of the typical personnel tasks are assigned to the work teams (for example, selection and pay administration), they are subtracted from the duties of the personnel manager. However, he or she cannot simply ignore these areas. Instead, the personnel manager must work with the line organization to facilitate the accomplishment of these tasks. He or she must have good interpersonal skills and must function as a key resource on how the new practices should be implemented.

The personnel manager needs to be an expert in job design, pay systems, training, and so on, so that other employees will have someone to consult when they need advice. In many cases, the personnel manager ends up with a difficult and frustrating job. The skill demands are much different and often much greater than those required in a typical plant. He or she may be asked to solve problems that have never been tackled before and that have no established solutions.
Establishing Standards

Adequate standards in such areas as production and performance are difficult to establish in any organization, and particularly difficult to establish in new organizations, because they lack a track record. Thus it is not surprising that high involvement plants seem to have trouble developing criteria upon which to base such things as pay raises and promotions. The normal problems that are part of any start-up operation are compounded for them because in these plants employees are typically asked to set the standards for their peers. Unless these employees receive a great deal of help, they find it hard to develop objective, challenging yardsticks for measuring their co-workers, particularly when such matters as compensation are involved. This is hardly surprising, since they usually have little prior experience and it is easier to be a good guy and set relatively low standards. Some plants deal with this problem by having employees develop written tests of job knowledge and set minimum time periods that must elapse before raise applications will be considered.

Regression Under Pressure

At some point in the history of most plant start-ups, whether high involvement or not, intense pressure for production develops. The pressure stems from the need to get the plant on-line in accordance with a predetermined production schedule. This period has proved to be particularly crucial in the life of most plants. Managers tend to revert back to traditional management practices in times of crisis. They jump in and try to take charge.
Needless to say, such an act can be very damaging to the successful startup of a high involvement plant. It communicates to everyone that the new principles of management apply only when things are going well. Not all plants get through this period with their commitment to participative management intact. In one instance, at least, start-up problems led the plant manager to declare that the participative management program was officially abandoned. The problems in this plant stemmed from the fact that no preparation had been made to deal with the necessity for making some decisions, particularly technical ones, in a nonparticipative way. The plant also suffered from a severe learning overload problem. People were trying to learn a new approach to management as well as a complex new production process. It was simply too much to learn in a very short period of time. What is needed of course, is either a realistic learning schedule or a workforce that has a good background in either the technology or the management system.

Timing of Start-up Decisions

At present, no clear timetable exists of when various activities should begin in the start-up of a new-design plant (See Lawler and Olsen, 1977). Thus every organization that has launched such a plant has wrestled with issues like: When should the pay system be developed? When are personnel policies to be set? When should the first employees be hired? When should autonomous work groups be established?

Factors such as the type of technology and the skills of the employees need to be taken into account in drawing up an implementation schedule. Where the technology will change during the growth of the plant, it may be best to think in terms of an intermediate organization
design, something to be abandoned once the technology has stabilized. Some projects have gotten into trouble because they tried to proceed immediately to the final organization design stage, despite the fact that it was not appropriate to do so during the start-up period. For example, efforts have been made to set up autonomous work groups as soon as production began even though the nature of the technology did not permit stable group membership at that time.

**Interface With the Rest of the Organization**

In one sense, high involvement plants are foreign bodies inside larger organizations. They differ in a number of important ways from the organizations that created them and to which they are responsible. For every new plant—successful or not—this has created a number of interface problems. The most public attention has been devoted to the case of a Topeka dog food plant, but problems are by no means restricted to that situation (Walton, 1975). High involvement plants are living demonstrations of a different way to operate, and as such they automatically raise the question of whether the rest of the organization needs to change.

Various vested interests inevitably feel threatened and challenged by this question. Managers on the corporate staff, for example, may feel threatened because many issues for which they have stock answers are dealt with in an individualized manner at the plant level. Such an approach can jeopardize their job security by fostering demands for change from other parts of the organization.
Some managers may feel threatened because the plants operate without managers in the same or similar positions. In addition, managers in other plants may be concerned that they will have to change their whole approach to management if the new plants succeed. Finally, other managers may feel that their upward mobility in the organization will be hindered if the managers in the new plants do well and their operations are highly profitable.

At this time, no organization has solved the interface issue, but some are trying intriguing approaches; the most successful seem to revolve around an emphasis on decentralization and communications (Walton, 1977). On the one hand, companies using this approach stress that it is okay to be different. On the other hand, they are dealing with the communications issue by a number of devices, including seminars, task forces to study and design new plants, and frequent visits by managers from other locations to the high involvement plants.

DIFFUSION OF NEW APPROACHES

Despite their visibility and importance, at this point only a minute fraction of the population of the United States works in high involvement plants. What does the future hold? It seems clear that more new plants like the ones mentioned in this article will be started in the next few years. Diffusion of these practices to many new plants seems almost certain because of the success of the existing ones and because knowledge about how to do it is rapidly growing.

But what about older plants? Many of the practices mentioned here are also being tried in established locations, although few have tried the kind of total system approach that is characteristic of the new plants.
This is a crucial difference. Can the total approach be applied successfully to existing plants? Can it provide a much needed model for how organizations can be made more effective? The jury is still out on this one, but there is reason to believe that it has tremendous potential.

The high involvement model is a seemingly successful total systems approach to the management of plants. It translates vague terms like "participative management" and a "concern for human resources" into actual policies and practices. Thus, there is something substantial to disseminate. Many organizations' new plants are being used for training people who can apply their concepts elsewhere. Interestingly, all the managers I have interviewed in new plants have said that they did not want to go back to a more traditional approach. Finally, in a number of cases, pressure for dissemination is building up because of the success of the new plants. After all, it is hard to ignore plants which are more effective.

Perhaps the most difficult problem in applying the high involvement model to existing plants stems from the fact that it is successful precisely because it is an internally consistent total approach to management. It is impossible in most existing organizations to install all the practices which are characteristic of the high involvement model in a short period of time. This means that a transition period is needed during which new practices are being installed and costs are being incurred but no results are seen because enough new practices are not in place. In many respects installation would be a great deal easier if a few changes could be made and positive results shown, but this seems unlikely since people respond to their total environment and with a few
changes they are not likely to experience a significantly different management system. The challenge at this point, therefore, is one of devising effective implementation strategies for a system of management which seems to have great potential. If this can be done I have no doubt that we will see many older plants slowly but successfully convert to the high involvement model.
REFERENCES


