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TOTAL QUALITY MANAGEMENT: GETTING STARTED

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Total Quality Management: Getting Started

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**Abstract:**

This paper gives guidelines for starting a Total Quality Management (TQM) program using Organizational Development (OD) intervention techniques to gain acceptance of the program. It emphasizes human behavior and the need for collaborative management and consensus in organizational change. Lessons learned stress the importance of choosing a skilled TQM facilitator, training process action teams, and fostering open communication and teamwork to minimize resistance to change.
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TOTAL QUALITY MANAGEMENT: GETTING STARTED

I. INTRODUCTION

During the implementation of any new management initiative, it is crucial that the people affected have a sense of ownership in the procedures adopted. This calls for a participative management approach. Managers and workers must collaborate in diagnosing organizational problems and developing solutions. In starting a Total Quality Management (TQM) program, for example, the strategy adopted should be jointly developed so everyone has a sense of ownership in the actions taken. Whether one adopts a Juran, Deming, or other approach should be a matter of consensus.

TQM frequently fails when companies fail to define their problems and make sure that managers understand and support the objectives and methodologies of TQM. Too often companies begin developing a plan for improvement without understanding the organization's problems and without adequate support from lower levels of management. The endorsement of TQM by top management alone is not enough. There must be strong endorsement by managers at all levels, and these managers must infuse a sense of enthusiasm for the program in their subordinates. Techniques for developing this enthusiasm and sense of ownership are implicit in the Organizational Development (OD) literature.

To apply OD procedures in a TQM program requires a skilled facilitator. This person must be familiar with TQM quality improvement procedures and with OD techniques for gaining program acceptance. Facilitators must also be able to train people in TQM and OD. These newly trained facilitators then serve in their own organizations. It is best to use facilitators who are not a part of the management group that is initiating the TQM effort. Facilitators should have the independence and authority to run the program as approved.

This paper describes how to start a TQM program using OD techniques to enhance and gain approval of the program. It also builds on a previous report by Clark (1989b) which describes the application of TQM in a research and development (R&D) organization. The present paper will be of greatest use to managers starting a TQM program in a non-manufacturing or service organization, especially in the Department of Defense (DoD).

II. TOTAL QUALITY MANAGEMENT AND ORGANIZATIONAL DEVELOPMENT

Many authors have concluded that TQM is an organization's long-term effort to improve its productivity and customer satisfaction through participative management. Often, the end goal is to change the attitudes and, therefore, the culture of the organization. This is traditionally done through team building and the use of an outside change agent or facilitator. Viewed this way, TQM bears a strong relationship to OD, a philosophy and organization improvement technique which began well over 30 years ago.

TQM and OD differ in emphasis. TQM focuses on increasing the quality and quantity of goods and services in response to customer needs. It uses tools like statistical process control, histograms, control charts, and cause and effect diagrams. OD, on the other hand, emphasizes collaborative management, formal work teams, and cultural change in an organization. It is closely related to American society's increasing concern for the welfare of the worker.

OD and TQM have a common goal: a quality product through quality management. An OD psychologist would say that when individuals can meet their own needs while meeting
organizational needs, output will be qualitatively and quantitatively best (Golembiewski, 1969, p. 368). A TQM practitioner would say that when quality is built into a product through process control techniques and customer needs are met, output will be best. TQM stresses customer satisfaction; OD stresses meeting workers' needs.

III. GETTING STARTED

Starting a TQM program is difficult. People report they read the popular literature or hear a TQM briefing and come away with a general understanding of TQM philosophy, but no specific directions on how to get started. This condition is so common that, according to Kanji (1990), it even has a name: "Total Quality Paralysis!"

Kanji's solution for overcoming this problem is to follow a four-stage TQM implementation procedure:

1. Collect information about the organization and identify where improvement will have the greatest impact.

2. Ensure that management understands and supports the objectives and methodology of TQM.

3. Develop a plan for improvement which involves all management in a proper scheme of training and communication.


Following these four steps should lead to commitment from the top, a united and coordinated middle management, and the data to make informed decisions. Each of these conditions is essential for TQM success.

Behavioral scientists writing in the OD literature have come to similar conclusions. As a result, they have developed techniques for gaining management support for new initiatives. These procedures are called intervention techniques. They consist of educational activities, questionnaires, team building exercises, and prescriptions of "things to do" and "things not to do." Clark (1989a) has reported the evaluation of several of these techniques in the DoD.

Some intervention techniques have several steps and are intended to change the whole organization. French and Bell (1984) classify these as comprehensive interventions. Comprehensive interventions include Grid OD, the confrontation meeting, and survey feedback. Smaller scale activities, such as team building, are a subset of these comprehensive interventions.

Grid OD, developed by Blake and Mouton (1969), has six phases which take from 3 to 5 years to implement. Its focus is on management style and a balance between a concern for people and a concern for production. The confrontation meeting developed by Richard Beckhard (1967) is a 1-day meeting of the entire management structure, during which they identify the organization's problems. The survey feedback technique consists of examining survey data and feeding back the data to groups and individuals who propose corrective actions. Richard Likert (1967) has been a principal proponent of this technique. The Defense Productivity Program Office (1990) has developed an excellent organizational climate survey for the DoD. It can also be used by non-DoD organizations.
A second type of intervention is the **structural intervention**. These techniques seek to improve organizational effectiveness through changes in the tasks and structure of the organization. They address who reports to whom, methods of control, the arrangement of equipment, work flow, and role definitions. They include job enrichment, quality circles, and Management By Objectives (MBO). The quality circle intervention applies most directly to TQM because it focuses on maintaining and enhancing product quality.

Some applications of structural interventions are not congruent with OD. Programs targeted from the outset at specific structural changes are not OD interventions. If, for example, MBO, work teams, and job enrichment are simply installed without much diagnosis or participation of the relevant work groups, they are not OD interventions. To be classified as an OD intervention, the strategy must include features such as collaborative diagnosis, joint problem solving, and the use of a facilitator (French & Bell, 1984, p. 211).

In all, French and Bell (1984) describe five types of interventions which range from working with whole organizations to working with teams and individuals. These activities can be used in TQM programs to increase participative management and intergroup cooperation. Coupled with TQM tools such as statistical process control, they can lead to increased productivity, better product quality, and enhanced customer satisfaction. Trying to introduce TQM without considering the behavioral dynamics of the organization significantly reduces the chances for success, as illustrated below.

### IV. AN ILLUSTRATION

**MGEEM.** One management technique which has been used to implement TQM is the Methodology for Generating Efficiency and Effectiveness Measures (MGEEM), described in Tuttle and Weaver (1986). It uses a group decision-making technique to clarify an organization’s mission, identify its customers, specify Key Result Areas (KRAs), and measure progress in the KRAs. Its emphasis is on process improvement, customer satisfaction, and the development of quantitative measures of mission effectiveness. Air Force Regulation 25-5 recommends using MGEEM to do TQM.

In 1989, Clark (1989b) reported several lessons learned while applying MGEEM in the Air Force Human Resources Laboratory (AFHRL). The principal finding was that many managers and workers did not support the program. They viewed MGEEM as a paperwork exercise unrelated to TQM. In a follow-up study conducted 20 months after the MGEEM program began, support for the program was still weak—despite top management endorsement. Of the 94 (out of 380) people answering a questionnaire in the laboratory TQM newsletter, 80% said the use of TQM/MGEEM at AFHRL was of “No Value” or “Some Value.” Only 20% said it was of “Moderate Value” or “Significant Value.” Several written replies said to stop MGEEM.

It might seem puzzling that MGEEM was so thoroughly rejected by many laboratory members. After all, MGEEM is a reasonable process. It helps organizations define their goals, satisfy customers, and measure progress toward reaching those goals. It should not pose a threat to anyone. Nevertheless, its procedures were burdensome to many and judged inappropriate for an R&D organization by others. Typical comments were, “Here we go again, another Zero Defects Program” or “This too shall pass, like MBO.”

People in the laboratory did not have a sense of ownership in the program. Although division-level management participated in selecting the MGEEM KRAs and indicators, they did not support using MGEEM in an R&D laboratory. This attitude was passed on to lower levels of management; so, few people developed a sense of ownership in the program. This attitude prevailed, even though several of the scientists in the laboratory helped develop MGEEM.
A major finding from this experience with MGEEM was that it is not enough for only top management to endorse a new management initiative. All levels of management must participate in selecting the new initiative, and at least a majority should endorse it. They must also instill enthusiasm for the program in their subordinates, if the program is to be sustained. The hope that the idea will catch on later is very optimistic, especially when organizational turnover is as high as it is in the DoD. People merely wait out current management.

None of this is to say that MGEEM is an ineffective technique for instituting TQM. Perhaps it was rejected prematurely and did not receive a fair test. The rejection of MGEEM may have been more a consequence of how management introduced it than its methodology.

V. APPLYING OD INTERVENTION TECHNIQUES

Had AFHRL used OD intervention techniques during the TQM planning stage, it is possible that they would have chosen a more acceptable TQM approach. Three OD techniques which could have been used are survey feedback, the confrontation meeting, and work teams. Advantages to this approach are that problem identification is based on survey data; top management and work teams define the problems and propose solutions, thereby giving them a sense of ownership in the process; middle management and workers develop the specific TQM procedures; and the survey data provide a reference point for surveys administered after changes have been made.

This approach follows Kanji's four-step procedure: (a) The survey identifies organizational problems; (b) the confrontation meeting allows management to address those problems; (c) teams develop action plans; and (d) new initiatives begin. Progress can be measured in several ways, including through MGEEM. Once a team spirit evolves through the confrontation meeting and team building, resistance to new ideas usually diminishes.

Some evidence for this lessening of resistance was obtained during a continuation of the MGEEM program at AFHRL. A group of 11 co-workers met to start MGEEM in their group. Initially, they took a moderately paced step-by-step approach in developing MGEEM KRAs and indicators. Discussion was general and impersonal.

During a second meeting, the group departed from a traditional step-by-step startup procedure and spent more time discussing the KRAs. One KRA, for example, was communications. The group discussed their communications processes in depth, and uncovered several problems. There was then an anonymous vote where each person rated the group communications process on a 5-point scale: Superior, Excellent, Average, Below Average, and Unsatisfactory. The vote allowed the less vocal participants to express themselves, and the average score served as a reference point for assessing improvements in the communications process. Actions were assigned to solve the problems in communications.

As a result of these procedures, group cooperation and mutual support grew. Discussion increased and lecturing decreased. New ideas were more readily accepted. If meetings continue at least weekly, group cohesion should continue to increase, and self-assessments in the KRAs should become more effective as processes improve. After that, internal and external customers will assess the group's performance. That interaction should result in improved product quality and better customer relations--basic TQM goals.

This attention to group dynamics through extended discussions and anonymous feedback builds on the survey feedback technique and the confrontation meeting. Each is a form of participative management which fosters frank discussion and consensus seeking. In combination with a skilled facilitator, they increase the chance of developing a sense of ownership in the
VI. LESSONS LEARNED

In December 1989, Clark (1989b) reported several lessons learned during the TQM program at AFHRL. The following are additional lessons learned. They concentrate on starting a TQM program and gaining acceptance for it.

Facilitators. Organizations sometimes appoint their own facilitator and conduct a do-it-yourself TQM program. The facilitator is responsible for introducing the program, training additional facilitators, and teaching everyone team building and participative management. This approach is often unsuccessful because the facilitator is untrained in behavioral dynamics and is unfamiliar with the TQM literature. Facilitators also frequently perform their TQM duties on a part-time basis.

An alternative to using an internal facilitator is to hire a full-time, skilled practitioner from outside the organization. This person should be able to listen attentively, answer questions, and offer TQM alternatives. Facilitators should not impose their own philosophy on the organization or direct a specific TQM approach. The group should develop their own TQM approach based on their unique requirements.

A good facilitator makes his values and beliefs visible to the client organization. Otherwise, neither party can learn to trust the other. Hidden agendas handicap both trust building and mutual learning. Organizational change efforts often fail if management applies techniques unilaterally and without open collaboration (French & Bell, 1984, p. 52).

O'Neil (1990) has recently published guidelines for facilitators planning organizational change. He emphasizes explaining the need for change to all employees, setting goals, encouraging group interactions, leading by example, and recognizing TQM participation. He advises using a professional facilitator who has expertise in OD and in conducting OD training programs.

Process Action Teams (PATs). The role of PATs in a TQM program is to examine manufacturing and administrative processes and improve the quality of service to the customer. Twenty months into the TQM program at AFHRL, 380 people were asked: How valuable are the process action teams at AFHRL? Twenty-one percent of the 94 people answering said, "No Value." Thirty-five percent said, "Some Value"; 31% said, "Moderate Value"; and 13% said, "Significant Value." These results were surprising because throughout the TQM program people said the PATs were the most effective and worthwhile part of the program. We expected more people to say the PATs were of significant value.

Written comments from the survey showed that people who said PATs were of no value were either not aware of what the PATs were doing, felt the PATs created too much bureaucratic busy work, or thought the PATs were not addressing the right problems. People who rated them highly said the PATs increased communications, involved people from lower levels, and proposed effective solutions to problems. PAT participants tend to rate PATs more highly than non-participants do.

Most PATs at AFHRL worked on improving administrative procedures. They improved the laboratory management information system, work unit processing procedures, and technical publications processing. There was less progress in improving the quality of the laboratory R&D product and customer satisfaction. PATs should spend a major portion of their time working on product improvement and customer satisfaction. Excessive attention to administrative
procedures can be a symptom of undue concern about management and too little concern about customer satisfaction and product quality.

PATs are most effective if they clearly understand their responsibilities. Harrington (1988, p.32) offers several guidelines for PATs. Some of the more important are:

- Define the limits of the process.
- Define the customers and their requirements.
- Flowchart the current process.
- Collect the current procedures and analyze their interactions.
- Develop a list of problems and prioritize them.
- Develop preventive action plans.
- Establish measurements, control systems, and feedback procedures.
- Develop input and output specifications.

These guidelines are worth passing on to all PAT chairmen. Without guidelines, teams often approach the problem in a haphazard fashion; they do not clearly identify the problem or diagram the process.

Although management can establish some PATs, workers should spontaneously form most PATs. There is a greater likelihood for organizational change from bottom-up PATs than from top-down PATs. Top-down PATs established by management are often conservative. They are likely to work on processes assigned by management which when improved will have little effect on current organizational procedures or philosophies.

Changing PAT membership is a problem unless a membership term is specified when the team is established. Another problem arises when people who want to join a PAT are not welcome or their supervisors will not give them permission to join. PATs can become self-centered power centers on crusades of their own. Consequently, a corporate board should periodically review all PAT activities to ensure the PATs are attacking the right problems with the right people.

PATs are not the solution to all problems. It is easy to defer decisions to a committee without exercising leadership. Some problems sent to PATs could be easily solved by management in half the time. The counter to this argument is that people accept PAT recommendations more readily than directives from top management. This is not the case, however, if PAT activities are not well known, or if PAT recommendations are eventually approved by management anyway. Exactly what PATs should study is a judgment call. The decision should be based on the need for consensus, the qualifications of the team, the complexity of the problem, and the time available.

Often, management forsakes PATs, participative management, and TQM to meet a deadline. When this occurs, the credibility of the entire TQM program suffers. TQM is then viewed as being good in theory, but not in practice.

Training. Typical TQM training programs consist of lectures on the philosophies of Deming, Juran, Crosby, and other well-known quality advocates. There should be additional training on such subjects as participative management, customer interface, process control applications to non-manufacturing activities, and statistical analysis.

Process Action Teams need training on group participation skills, brainstorming, cause and effect diagrams, and other TQM tools. Most experts orient this training towards the task at
hand, rather than towards people's feelings and personalities. Training in OD intervention techniques comes after management has decided which techniques to apply. Unless people receive specialized training, they do not know how to get started.

Communications. Good communication is fundamental to the success of any TQM program. Yet, many supervisors try to protect their workers by sheltering them from downward communications which the supervisors think are trivial or inappropriate for the workers. Their intention is good, but the resulting communication gap is not. Workers feel isolated because they never get the big picture, and they do not develop a sense of organizational purpose or loyalty.

Upward communication can also be stifled. Managers sometimes fail to listen, and a subordinate's request to discuss a mutual problem can turn into a lecture from the boss. Under these circumstances, workers stop communicating upward. They speak only when spoken to.

What results is workers complaining about managers and managers complaining about workers. There is virtually no upward or downward communication. Changes to this pattern can come about by recognizing the problem and training new behaviors through classroom discussion and leadership example. Open communications are essential to TQM success.

Newsletters. Some organizations increase communications, openness, and teamwork by using newsletters. AFHRL started a newsletter halfway through its TQM program. The newsletter was distributed each month and invited everyone's participation. Articles could be anonymous, critical, complimentary, and on any topic related to TQM. Reaction was positive, although only four articles were received for publication during the first 7 months. Informal conversations indicated there may have been more TQM discussions in the laboratory because of the newsletter.

The newsletter is still distributed in AFHRL to keep the importance of quality and productivity gains visible to management and employees. The benefits of having a newsletter outweigh those of not having one.

Measuring Quality and Productivity. One of the goals TQM managers set for their organizations is to produce a quality product. Some establish formal policy statements on quality such as, "We will deliver defect-free, competitive products and services to our customers on time." Or, "We are AFSC, responsible to our customers for research, development, test, and acquisition. We work together to turn technology into quality systems to keep ours the best air force in the world." Although such management slogans convey a sense of commitment to everyone in the organization, people forget them unless specific goals are established at the working level. Workers must develop measures of progress toward reaching their goals.

Most measures of progress are simple quantitative indicators like number of misfiles per week or percent of time program plans are met. They are used primarily in administrative and manufacturing type organizations. Some experts say that if something cannot be measured, it cannot be improved. This may be a good point, but many scientists in R&D organizations reject the idea.

These scientists say one cannot measure creativity. They also maintain one can only measure the quality or value of an R&D product years after the R&D has been completed. Counting publications or literature citations are ways to measure R&D productivity, but these measures fail short too. For example, university colleagues and professional organizations may respect the research, even though the product has little relevance to the employing organization.

The most direct way to measure quality and productivity in an R&D organization is to establish customer requirements, set goals, and measure progress towards reaching those goals. This is done in cooperation with the customer. Although this method is more appropriate for
applied R&D projects than for basic research, it can be used for both. Actual measurement is done using customer surveys. In an R&D organization, there should be less emphasis on measuring scientific progress through use of the traditional TQM statistical process control techniques.

If the measures of productivity and quality developed are not meaningful and acceptable to everyone involved, people will treat the TQM program like a game. They play the game by following orders, but they do not truly support the program. Some submit arbitrary or invalid performance data, and others undermine the program by belittling it to their colleagues. The result is a reduction in productivity, quality, and morale.

Resistance to TQM. Some people resist any type of organizational change. They do not want to start a TQM program or any other program. They just want to be left alone to do their work. Others fear a loss of responsibility while still others fear they may get some. Reactions range from outright argument against TQM to stonewalling and simply waiting out current management.

Management must listen, but also lead. If data show that organizational problems exist, open discussions should take place; but it is up to top management to lead the organization. This does not prevent the use of OD techniques. In fact, the greater the problem and resistance, the greater is the need for OD. People become believers based on the enthusiasm, examples, ideas, and data presented by management.

Whatever TQM strategy and tactics are adopted, they must be reviewed and updated at least once each year. They should also be changed periodically based on experience. This action accommodates criticism and conveys a sense of continually striving for improvement and acceptance of the procedures adopted.

At IBM, top-level corporate management conducts a detailed quality improvement review at least once yearly. Divisions have a short weekly review of problem areas and a comprehensive quality review of all activities once each month. At the plant level, the plant manager reviews the major quality indicators once each week (Harrington, 1988).

Labels. Labels, such as MGEEM, TQM, MBO, and Zero Defects, can easily become scapegoats for people dissatisfied with a new management initiative. One way around this is to avoid using labels. The NASA Lewis Research Center, for example, calls its quality improvement program just that, a quality improvement program (Office of Management and Budget, 1989). Although NASA uses Deming principles and the ideas of other TQM experts, they intentionally avoid referring to their program as a Deming program or a TQM program. Their program is a combination of quality initiatives uniquely patterned for their organization. This may be a good policy to adopt, since it can be more difficult to argue against a quality improvement program than a specific TQM program with a label.

Initiative. Another significant lesson learned is that the opportunity TQM offers workers is seldom recognized--or perhaps seldom acknowledged--by the workers themselves. TQM asks for worker participation and pleads for good ideas to improve organizational processes and product quality. It also offers a more challenging and stimulating work environment to the responsible manager and worker. Morale should improve.

TQM combined with OD offers everyone the opportunity to own part of the organization by incorporating their ideas and activities into the organization. People do not have to wait for management to tell them what to do; they can turn TQM to their own advantage. They can grab hold and use it. When they refuse to do that, they are either afraid or apathetic. They
do not trust the system, or they do not want to get involved. Many who do not become involved prefer to be told what to do--although they deny it.

In the case of fear, it is management’s job to drive out that fear by continually reinforcing the claim that management truly wants participation. Management needs to sponsor better communications, better cooperation, and increased teamwork. This can be done through OD intervention techniques.

VII. FADS

Many who read this paper will be familiar with the long list of publications which tell how to improve organizational productivity, quality, and morale. An especially good summary of the latest fads has been published by John Byrne (1986). He tells in a very entertaining way how fads come and go, and what are the latest fads. He says that too many modern managers are like compulsive dieters: trying the latest craze for a few days, then moving on (p. 58).

The theme of this paper is that things do not have to be that way. An initiative to increase productivity and quality can succeed and endure if people in the organization buy into it. First, they have to believe they need a change; then they have to agree to participate in the program. Because people are different and organizations are different, the approach must be tailored to the organization.

Success requires a qualified facilitator or change agent who can teach people how to work as teams. Additionally, all levels of management must endorse and actively sponsor the management change. Workers must have goals which are consistent with the overall goals of management. OD techniques can help to obtain the required trust and cooperation needed to sustain a TQM program. All this takes time, patience, and considerable skill.

If TQM does not work as promised, we may have to admit that programs which rely on people’s good will just won’t work. As Ring Lardner, Jr. (1990) said about Communism in Eastern Europe: Communism like Christianity is good in theory, but given human nature, hard to put into practice. Perhaps the same can be said about TQM.
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