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**Total quality management in Central America: A case study in  
leadership and data-based dialogue**

**Osland, Asbjorn, Ph.D.**

**Case Western Reserve University, 1994**

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TOTAL QUALITY MANAGEMENT IN CENTRAL AMERICA:  
A CASE STUDY IN LEADERSHIP AND DATA-BASED DIALOGUE

by

ASBJORN OSLAND

submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy

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August, 1994

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TOTAL QUALITY MANAGEMENT IN CENTRAL AMERICA:  
A CASE STUDY IN LEADERSHIP AND DATA-BASED DIALOGUE

Abstract

by

ASBJORN OSLAND

This dissertation compares the approaches taken by two general managers of similar production operations in the implementation of total quality management programs in two Central American settings. Policy deployment enabled one general manager to resist strong cultural pressure to assume direct control of the quality council, as one would have expected in a high power distance setting. He implemented the innovation at lower levels of the organization even though the quality council was not ready to assume leadership of the process. The other general manager's approach was less effective because he behaved opportunistically and focused on alignment of the quality council with his perception of total quality management before diffusing the innovation throughout the organization.

A contingency that was present in both settings before the innovation adoption process began was collaborative problem-solving (i.e., data-based dialogue) between foremen and production unit managers. The policy deployment strategy of the first general manager enabled his programs to reach and be reinforced by the users of



this mode of interaction, while the strategy of the second manager did not allow this to happen.

The research process consisted of 26 months of participant observation, attitude surveys contrasting the attitudes of total quality management program participants (n=80) and non-participants (n=82), and interviews within production units (n=17).

The total quality management participants had significantly more positive attitudes, as measured by the Sabiers-Pasmore socio-technical systems benchmark survey (1992), than the non-participants in the production operation where policy deployment occurred. This was not the case in the other location where the manager coopted the quality council in his effort to align it with his perception of total quality management.

The implications of the preceding are the following: (1) in high power distance settings, managers must be deliberate in their policy deployment to counter the strong cultural pull of autocratic control; and (2) total quality management may depend on existing contingencies such as data-based dialogue.

The main contribution of the research is the assessment of contingencies to consider in implementing total quality management in Central America.

To my mother and the memory of my father

## ACKNOWLEDGMENTS

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## CHAPTER 1

This dissertation explores the relationship between the intraorganizational adoption of total quality management and a variety of cultural and organizational contingencies.

The research to be reported was done in two large economies of scale production operations located in Central America. I was a participant observer while these production operations were implementing total quality management.

### Structure of the Dissertation

The primary research questions I address in this thesis are the following:

- (1) How can leaders deal successfully with existing cultural and organizational contingencies while implementing total quality management, when this innovation promotes behavior contrary to the organizational and national culture?
- (2) In such a setting, how does the adoption process affect and become affected by established work structure and routine interaction patterns between superiors and subordinates?

Since the dissertation was based on grounded theory building (Glaser & Strauss, 1967) the research questions I began with were very general and the ones I eventually



focused on were the product of many rounds of data gathering and inductive analysis.

Moreover, no standard definition of total quality management is provided in the literature. Relatively little scholarly work has been done on the topic as a whole. Therefore, in Chapter Two I will define total quality management to ground the discussion and then review the literature on the following topics:

- (1) leadership within strong organizational cultures in societies where high power distance is present; and
- (2) the context of employee involvement -- that is, how the specific intraorganizational contingencies shape employee involvement.

In Chapter Three I describe grounded theory building (Glaser & Strauss, 1967) as well as how I gathered my data. The data gathering process involved participant observation over a period of 26 months, survey data contrasting total quality management participants (n=80) to non-participants (n=82), and interviews with production unit participants (n=17), all conducted within the Central American production operations of a U.S. based multinational, hereafter referred to as LITEP, Inc. (Labor Intensive Tropical Export Product, Inc.)- a pseudonym, as are all the names that follow.

In Chapter Four I present a distillation of the findings in the form of a short story. I also wanted to convey the more social aspects of the setting and chose to do so in this manner. Layered over this was an organizational culture that was intensely task oriented. Latin culture made it pleasant; intense neo-colonial pressure over decades had made the LITEP production facilities highly productive.

In Chapter Five the findings are presented that relate to how each of the leaders studied built on existing cultural and organizational characteristics while implementing total quality management, as well as the consequences of the particular strategies each used.

In Chapter Six, the findings regarding data-based dialogue within the production units are presented. Data-based dialogue refers to collaborative problem-solving where assertive cooperation is possible due to a focus on data rather than the political tension inherent in hierarchy. Implementing total quality management in such a way as to gain early access to groups already engaged in data based dialogue proved critical to the more successful of our two research sites, since many aspects of total quality management amplify and are amplified in turn by this kind of interaction.

Chapter Seven recapitulates the findings, suggests implications, and notes the study's limitations.

## CHAPTER 2 LITERATURE REVIEW

There was such a dearth of scholarly work on total quality management in general that in 1993 the Academy of Management Review announced plans to publish a special section or issue on the topic. As recently as 1992, Lawler, Mohrman, and Ledford claimed that their study was the first to assess the adoption of total quality management. I hope the present study contributes to filling this void in the literature by describing some of the cultural and organizational contingencies critical to leaders and organizations that adopt total quality management.

The literature review below is structured to seek answers to the following questions:

- (1) What is meant by total quality management?
- (2) What should leaders keep in mind when attempting to implement total quality management in settings where strong organizational and cultural values run counter to the espoused values of total quality management (e.g., high power distance versus employee involvement)?
- (3) What is the importance of existing organizational routines in the adoption process? Do innovations such as total quality management change the organization or rather improve the functioning of existing routines?

### Discussion of Total Quality Management

I will now define the term total quality management and list its essential factors followed by a description of a typical initial implementation program.

#### Definition and Essential Factors

From the viewpoint of objectives, total quality management is a managerial approach, relatively unique to each organization, in which it is applied, that seeks to improve product quality and increase customer satisfaction by restructuring traditional management practices (GAO, 1991). Specifically, according to Winter (in Baum & Singh, 1993) it is an application of a particular collection of problem-solving heuristics and techniques based on the notion that information required for the improvement of a routine can be obtained only with the active cooperation of the employees involved in its performance. Typically, groups of employees utilize problem-solving techniques, that may include statistical process control, to analyze data and subsequently suggest improvements to managers. These managers, in turn, have committed to listen to their subordinates' analyses and suggestions because they assume that the information needed for continuous improvement can be best obtained through such employee involvement.

To describe total quality management in more detail one must discuss its individual components. The guidelines used by companies competing for the Malcolm Baldrige national award for recognition in total quality management are listed by George (1992). They describe total quality management in terms of the following factors: (1) leadership, (2) information and analysis, (3) strategic quality planning, (4) human resource development and management, (5) management of process quality and operational results, and (6) customer focus and satisfaction.

#### Leadership

Leadership is the driving force behind a company's quality system. Total quality management requires the personal leadership and involvement of senior executives in creating a sustainable competitive advantage through quality. For the program to be successful, the values that underlie these efforts must eventually be incorporated into the organizational culture.

Leaders generally house the initial total quality management effort in parallel structures (Lawler, 1992), such as a quality council made up of supervisors and department heads who oversee the activities of quality action teams. In the parallel organization the leadership commits itself to listening to the outcome of

quality action teams and their data-based analyses. As members of the quality council, the leaders step out of their hierarchical roles. The membership of the quality council varies from one organization to another but must contain enough organizational leaders to be a credible body in the view of the hierarchical leaders.

Ishikawa (1985), a Japanese authority on quality, states that the managers must be the first to learn about quality and must visit companies that are using quality control to gain a personal exposure to the method. Reading about an empowered workforce is a great deal different than first hand observation.

Leadership is crucial to employee involvement. Lawler, Mohrman, and Ledford (1992) found that 50% of the 313 respondent Fortune 1000 organizations perceived support by top management was very important to employee involvement. On the other hand, leaders also present formidable barriers to the employee involvement process; 46% of the respondents said that short-term performance pressure was a barrier to employee involvement and 25% complained of unclear employee involvement objectives.

#### Information and Analysis

The emphasis in information and analysis is to manage by fact rather than intuition. Data should be specific and measure priority outputs of highest value to

the customers and their anticipated desires. It must be externally validated in relation to competitors through benchmarking, an on-going process of comparing one's performance to the industry leader to determine what needs improvement.

The Japanese emphasize the "quality story" (i.e., a standardized presentation format) to curb decision making based on managerial intuition and capriciousness (Lillrank & Kano, 1989). This is a structural support for involvement. Subordinates lack hierarchical power by definition. Their political power within organizations depends on alliances such as unions, but many workers are not unionized, and even if they are they may feel alienated from the mission of the organization. Given their lack of hierarchical power and its accompanying responsibility, the subordinates' level of involvement is determined by the structures and routines established by management and the organization. If management is committed to data-based problem solving, then the involvement of subordinates comes from working in teams to provide management with data-based analyses of problems and suggestions for continuous improvement.

#### Strategic Quality Planning

In strategic quality planning, the planning must be based on data gathered from customer feedback, market



research, and benchmarking. The quality plan must be integrated with the strategic plan. It should anticipate customer needs and also incorporate the abilities of suppliers. According to Ishikawa (1985), quality policies must be put in writing and widely distributed. They must reach the lower levels of the organization and be explicit and concrete. All policy and goal statements must be consistent. This process is referred to as "policy deployment." Employee involvement depends on strategic clarity so that associates can work in a manner consistent with policy. The quality council generally assumes this clarifying role in contemporary American organizations. Its directives must not subject the subordinates to overwhelming conflicts with the hierarchical structure. Subordinates' job security, pay and promotional opportunities still depend on the hierarchy.

#### Human Resource Development and Management

Human resource development and management (e.g., training, development, and employee involvement activities) must be consistent with the company's quality goals, strategies, and plans. Involvement strategies are central to the human resources development program that supports total quality management and must be in harmony with the organizational structure and policies. For

superiors in established hierarchies, commitment to cross functional data-based management may require a new set of behaviors such as coaching and facilitating, rather than directing. Obviously leadership training is crucial to the success of such efforts to facilitate the transition for managers. Encouraging subordinates to psychologically assume the risks of involvement is the other essential element. The most obvious risk to subordinates is that they may present a recommendation contrary to the way their superiors have done things historically. If the training is synchronized, the data-based dialogue that total quality management supporters espouse should result, and not retribution against the subordinates. This is not a simple transition.

#### Management of Process Quality and Operational Results

Management of process quality and operational results focuses on process design and production and relies on contact with customers for input to the product planning process and data collection and analysis, including statistical process control as a tool to monitor production where appropriate. Statistical process control in the production area has both internal and external applications. It is used to control production processes and monitor materials used as inputs. Suppliers are treated as partners in the

process, a major change from pitting suppliers against one another on a simple "cost for resources" basis. Deming (1986) insists the criterion for choosing suppliers must be total cost that includes waste caused by poor materials provided by suppliers. Statistical process control enhances involvement for subordinates in manufacturing environments; they can engage their superiors in a data-based dialogue that reduces the tension of interpersonal dynamics in like manner as French bureaucratic rules did for the members of the French bureaucracies studied by Crozier (1964).

#### Customer Focus and Satisfaction

Customer focus and satisfaction means that quality focused organizations learn what customers appreciate and then measure these criteria to provide feedback to relevant sections of the organization. Customer service and building sound relationships with customers through on-going contact are vital to these organizations. Consumer opinions must be incorporated into the product planning process if the product is to answer the true needs of the consumer (Ishikawa, 1985). To accomplish this customer focus the parallel structure must either meet directly with customers or receive feedback from customers.

### Typical Initial Implementation Program

Several popular handbooks (Brassard, 1989; Scholtes, 1992) provide detailed explanations of how to process, analyze, and present data. However, the reader should recall that the process is relatively unique to each organization, given the wide range of specific contingencies that could affect the adoption process. The following description of an improvement project is one model and based on Scholtes (1992). It follows the Deming approach and the handbook was endorsed by him. The steps are the following:

(1) The handbook provides a project selection checklist that includes the following: the project is related to key business issues, it is important to external customers, there is managerial consensus that it is a priority, and there is enough cooperation to enhance the probability of success.

(2) Next the people are chosen. There should be a guidance team to support the project team's activities, secure resources, and clear a path in the organization. A team leader has to be assigned. A quality advisor is also assigned, who is trained in statistics and working with groups, to help train the team and help the members stay on track. His or her role tends to diminish as the team leader becomes more experienced.

(3) Finally, the project team members are assigned who carry out assignments and make suggestions for improvements, often in a standardized format.

#### Leadership of the Change Process

The central relevant question pertaining to leadership arising from this inquiry was the following: how might leaders build on existing cultural and organizational contingencies while implementing total quality management, an innovation that may promote behavior contrary to that generally accepted by the organizational and national culture?

The question arose during the participant observation phase of the research when I noted that the two general managers of the two sites where total quality management was implemented proceeded in very different ways, each way representing a different strategy for building on existing cultural and organizational contingencies and having a significantly different degree of success. The fact that the two strategies differed is consistent with what Lewis and Seibold (1993), in a recent review of intraorganizational diffusion of innovations, hypothesized: innovations undergo change during the intraorganizational adoption process. The fact that one approach proved more successful than the other suggested that I had encountered an instructive

situation for creating pragmatic guidelines for implementing total quality management.

Returning to the literature to see what it might have suggested a priori proved to be a good way for me to ground my findings and in turn a fruitful way to introduce our study to unfamiliar readers. Thus, in establishing the structure of the literature review I attempted to follow what I perceived were the logical assumptions a leader would have adopted to take the initial steps in guiding a total quality management organizational change intervention. The assumptions are summarized as follows:

- (1) The role of the leader is crucial to total quality management (Deming, 1986; Ishikawa, 1985; George, 1992).
- (2) Within the cultural context of Central America, high power distance-- i.e., high acceptance of inequality within social institutions (Hofstede, 1980)-- is a significant cultural contingency.
- (3) Latin cultures typically emphasize in-groups (i.e., allocentrism) within their collectivist societies (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). This results in strong intergroup tension-- i.e., pronounced turf battles between departments.
- (4) Employee involvement-- or as Deming (1986) called it, pride in workmanship-- is a fundamental aspect of total

quality management (Ishikawa, 1985; Lillrank & Kano, 1989). Acceptance of this basic premise enables the leader to pursue a course of action that may run counter to their cultural induced inclinations. For example, it is natural for a leader in a high power distance setting to take charge when the participation process falters. To avoid yielding to culturally encouraged autocratic or opportunistic behavior the leader needs a road map or cognitive framework provided by the aforementioned assumption.

The initial action steps one might suggest based on the literature are summarized as follows:

- (1) The leader interprets the culture (Schein, 1992). The leader sees that the strong organizational culture, traditionality in Shils' terminology (1981), is embedded (Granovetter, 1985) in the substantive, or value-based, rationality (Weber, 1968) of the traditional bureaucracy (Gouldner, 1954). The leader realizes that the continuity of the strong culture could be both a foundation for innovation while continuing to provide a satisfying environment for the employees (Salipante, 1992; Fry & Srivastva, 1992), providing the implementation is handled properly.
- (2) The leader understands that the innovation needs to be modified during the adoption process (Lewis & Seibold,

1993); an off the shelf or cookie cutter approach to innovation is not recommended given the contingencies described above.

(3) The leader acknowledges the organizational consequences of high power distance and allocentrism. Subordinates do as they are told but are ill prepared for involvement. In relation to allocentrism, intense in-group feeling constrains horizontal, or cross-functional, communication flows. Leaders use unobtrusive controls (Perrow, 1986; March & Simon, 1958) to guide the intervention. One can infer that the combination of socialization of the subordinates and the high power distance (Hofstede, 1980) of the culture means they would be obedient should he or she chose to impose his or her will.

We will now consider each of these elements in more detail.

#### The Importance of Leadership and the Implications of High Power Distance and Allocentrism

Virtually all of the literature (Deming, 1986; Ishikawa, 1985; Scholtes, 1992; George, 1992; Lawler, Mohrman, & Ledford, 1992) reviewed on total quality emphasized the critical role of the leader. Leaders direct the strategic quality planning and ensure that it is integrated with the strategic plan. Their planning



must ensure that human resource development planning includes training, development, and employee involvement activities that are consistent with the company's quality goals and plans.

Strong leadership is essential to overcoming resistance to change and innovation (Schein, 1992). Other employee involvement efforts such as quality circles sometimes failed due to a lack of senior management commitment and middle management support (Crocker, Chiu, & Charney, 1984). One could infer that managerially half-hearted total quality management efforts could have similar outcomes; Scholtes (1992) asserted that the shortcomings of leadership were the main reasons total quality management programs failed.

Thus, it is clear that leadership is generally perceived as crucial to the total quality management adoption process. However, what are the contingencies that leadership faces within high power distance settings? There is great deference to leaders due to high power distance (Hofstede, 1980). At first glance one could naively assert that a leader could simply order followers to adopt an innovation.

However, what are the organizational characteristics associated with high power distance? According to

Hofstede, the implications of high power distance for organizations are the following: greater centralization, tall organization pyramids, large proportion of supervisory personnel, large wage differentials, low qualification of lower strata, and white collar jobs valued more than blue-collar jobs. Although deference to the leader could facilitate the adoption process of total quality management, the characteristics listed above run counter to employee involvement. After my experience with total quality management in Central America, where high power distance was a prominent factor, I would speculate that managers would tend to rely on intuition unless they developed an appreciation for the information provided by lower level employees through employee involvement and subordinates would wait to be asked rather than volunteering their involvement.

Another characteristic of Latin societies is allocentrism (Triandis et al., 1988). Strong in-group feeling would inhibit the intergroup collaboration and horizontal communication flows associated with total quality management. As strong in-groups provide a profound sense of identity in collectivist cultures, one could infer that an insistence on making group boundaries more permeable, as in American style total quality management, would be naive and counter productive.

Leadership of the change process would have to consider the relative importance of allocentrism in contrast to horizontal communication flows across departments (i.e., in-groups).

With the aforementioned mentioned cultural characteristics working counter to what is commonly associated with total quality management, one could infer that the leader would have to be both sensitive and assertive in attempting to overcome the organizational inertia posed by such obstacles to the total quality management adoption process. I say sensitive because if leaders alienate followers too severely -- for example, by pushing intergroup collaboration too aggressively -- followers may lose faith in both the leader and the innovation. I say assertive because the organizational implications of high power distance present many structural barriers to the adoption process. Should there also be a strong organizational culture present, the leadership challenge is yet greater. How then can the leader guide the innovation process within strong organizational cultures?

#### Leadership within Strong Organizational Cultures

The leader interprets the culture (Schein, 1992). Organizations with traditional cultures are characterized by the high level of inertia that typically accompanies

tradition. Shils' (1981) traditionality adds two additional dimensions to the concept of strong organizational culture offered by Schein (1992). Schein's view is limited to artifacts, values, and underlying assumptions. Shils' adds the following to Schein's conceptualization: traditionality requires a passing down of recognizable traditions over a period of at least three generations (Shils, 1981, p. 15) and it entails the explicit recognition by its members of its key assumptions (Salipante, 1992). Shils defined generations contextually; for example, in a nursery school it could be four years. For our purposes, a generation refers to an adult's time of service to an employer, usually 15-20 years; a multigenerational organizational culture would therefore be one that spanned 45-60 years or more.

Elaborating on Shils, Salipante (1992) argued that the strength of such traditional culture creates the homeostasis that allows organizations to keep on doing what they have been doing. I hasten to add that strong cultures have their disadvantages in that practices and beliefs may become so entrenched that strategic flexibility is limited (Kotter & Heskett, 1992). People may not always cherish their traditions but find escape from them difficult, according to Shils (1981). Thus,

culture can be construed as a constraint on the change process. Another view is to perceive the essence of traditionality (Salipante, 1992) as a willingness to appreciate practices, beliefs, and values from the past and use them in managing current problems -- i.e., the innovation is superimposed on a stable foundation.

A related perspective of appreciating past practices, beliefs, and values is organizational continuity. Fry and Srivastva (1992) described the management of continuity in terms of searching for, valuing, and developing continuity. "Searching" means exploring the genesis of that which held people together in the organization. "Valuing" means making reasoned choices about what to continue. Thus, continuity and traditionality value and appreciate that which has brought the organization to its present state but, one can infer, do not preclude innovation.

Traditionality can be found in many older established organizations. One example could be a traditional bureaucracy (Perrow, 1986). As defined below, it fosters a substantive or value based rationality (Weber, 1968). The context and its organizational culture (Schein, 1992) cannot be ignored by a leader when introducing an innovation (Lewis & Seibold, 1993). Should this traditional bureaucracy also

meet the three generational criterion of traditionality, one could infer that involvement would be embedded in and shaped by the substantive rationality of traditionality.

Perrow (1986) used the term "traditional bureaucracy" to describe a gypsum plant analyzed by Gouldner (1954). What Gouldner (1954) found is briefly explained so that Perrow's (1986) definition of the term is clear. The gypsum plant was well integrated into the community that surrounded it. Family and personal relationships extended into the company. A new manager wanted the plant to behave more like a modern bureaucratic organization. He attempted to control it through rational mechanisms. This represented a clash of Weber's (1968) two ideal types of rationality-- the rational (i.e., economic) and the substantive (i.e., value based). Using the terms presented above, the traditional bureaucracy of the gypsum plant was one embedded in the substantive rationality of the organization's culture and traditions. Economic transactions are embedded (Granovetter, 1985) in a social reality. It was also interdependent with the community surrounding the plant. This substantive rationality was disrupted by the new manager who saw it as dysfunctional because it permitted particularism. Particularism here referred to such practices as nepotism, personal use of

company property, and unexcused absences. Gouldner reported that the new manager's rationalization effort had the unintended consequence of bureaucratic controls supplanting informal processes; commitment had been reduced so explicit controls had to be increased.

From the description of total quality management provided above, one could apply the label of "rational managerial intervention" to total quality management in that it is economically oriented toward improving quality and, in turn, profits. Based on the preceding discussion of substantive rationality (Weber, 1968), embeddedness (Granovetter, 1985), and Gouldner's (1954) description of what happened to the rational managerial intervention into a substantive (i.e., value-based) reality, one could infer that if the organization is embedded in a substantive rationality with assumptions very different from those of total quality management, the manager runs the risk of disrupting the informal or unobtrusive controls that maintain the organization in homeostasis. Aggressive pushing of total quality management without a thorough understanding of the substantive rationality (e.g., high power distance and allocentrism) present in the traditional organizational system and culture could prove disruptive.

From the preceding one could infer that leaders who wish to innovate through total quality management and employee involvement are constrained by organizational traditions and the culture of high power distance. Obviously, existing patterns of hierarchy and domination within organizations do not disappear when an intervention such as total quality management is introduced.

If one accepts the importance of leaders' interpretation of organizational cultures (Schein, 1992), one could infer that they use the cultural complexity of an organization's traditionality and the society's high power distance and allocentrism as a base on which to build, through managerial interventions, such as total quality management. Rational management is embedded in the continuity of tradition (Salipante, 1992) and culture (Hofstede, 1980).

Lewis and Seibold (1993) presented a theoretical framework for the intraorganizational adoption of innovations. They pointed out that organizational culture and structure influenced the degree of fidelity between the intended and actual use of the innovation. The innovation adoption process was not rigid adherence to an external off the shelf package but was rather an



evolutionary process wherein the innovation was shaped to the organization.

These authors hypothesized that a variety of organizational factors affected the adoption process of an innovation. They believed that in organizations not undergoing rapid change, the innovation adoption process was related to the organizational structure. Total quality management as an innovation would likely be molded to the stable hierarchy and not pose a threat to managers (Lawler, 1992). Hierarchy would be an important contingency for employee involvement. Just as Folk Catholicism incorporated some of the cultural practices of the pagan host groups evangelized, the level of involvement within total quality management would be molded by the attitudes, beliefs, and practices of the host culture. Implicit in the preceding is the notion that involvement must be viewed contextually by the manager; the intervention is not an isolated event, but is shaped by the context, be it traditionality, high power distance, allocentrism, or all of the preceding. The economic innovation, in this case total quality management, is embedded (Granovetter, 1985) in the organization's social system. The organizational characteristic of traditionality, coupled with the cultural aspects of high power distance and allocentrism,

all add complexity to the change process. One could infer therefore that the change process would have to incorporate strategies directed at overcoming such barriers.

#### Importance of Unobtrusive Controls

Barriers include traditionality, high power distance, and allocentrism. One could infer that overcoming the inertia of such elements could not be accomplished through managerial fiat or direct control. Implicit in a leader's introduction of an innovation such as total quality management, is the use of managerial control to manage the previously described complexity inherent in the innovation process within established social systems. How then do leaders manage the change process?

Perrow (1986), based in part on the work of March and Simon (1958), discussed three types of control: direct (i.e., orders and rules made by the powerful) and two forms of unobtrusive control-- bureaucratic and "the control of the cognitive premises underlying action" (p. 129). Unobtrusive bureaucratic control includes specialization, standardization, and hierarchy. The control of the cognitive premises underlying action was vaguely defined by Perrow as subtle forms of influence used by the organization to enable it to draw on the

accumulated experience, ability, and intelligence of the subordinate. Perrow (1986) asserted that the control of premises for action came about as the subordinate voluntarily restricted or limited his or her perception to that considered contextually reasonable or acceptable by the organization. One could infer that leaders need to consider shaping the cognitive premises for action of their subordinates to embrace employee involvement if total quality management is to be adopted.

To fill in the conceptual gaps in Perrow's seemingly useful but vague argument, social representations theory (Moscovici, 1988) will be used. Social representations theory was based on the work of a French scholar, Serge Moscovici, and had a "social and collective focus" (Augoustinos & Innes, 1990, p. 213) that moved beyond the individualistic orientation of schema theory to embrace a broader social reality. It built off Durkheim's collective consciousness (1947) and referred to the thoughts, images, ideologies, and knowledge that members of a social organization or culture shared. These shared patterns were used by the members to construct social reality, similar to the social construction of reality described by Berger and Luckman (1967). Social representations give us reified or objectified perceptions of constructs.

Social representations also provide us with more specific language to discuss concepts such as culture or ideology. Social representations theory is abstract and difficult to study in a highly structured empirical sense. However, given its collective foundation, it is a useful conceptual tool to discuss change. Let us assume that employee involvement is a social representation within total quality management and that employees working within a quality culture should approach their work with employee involvement as a cognitive premise for action. If leaders desire to promote organizational adoption of the innovation of total quality management, how could they shape employee attitudes to include employee involvement as a social representation or cognitive premise for action in settings where the organizational and cultural values run counter to it? How do leaders set the stage or context for employee involvement?

#### Context for Employee Involvement

In the preceding, cultural and general organizational contingencies were considered. Here the analysis will focus on how the specific intraorganizational context shapes employee involvement. This is important because parts of different organizations may already be skilled at behaviors that

either support or block the implementation of a total quality management program. One might add that employee involvement already in place would logically support it.

Employee involvement is a broad term with strong ideological connotations; therefore a definition is needed to clarify the present discussion. For ease of reference I shall refer to the different types of employee involvement as the high involvement, quality, and contingency groups. I will discuss managerial opportunism later in the case as it is not typically espoused in the literature. As shown in the following table, scholars and practitioners are divided into at least the four following groups:

Table 2.1  
**Perspectives of employee involvement**

Group: <u>Leading proponents</u>	Typical settings where <u>use is common</u>	High involvement <u>Lawler, Parnore, &amp; Sashkin</u>	Total quality management <u>Deming, Juran, &amp; Ishikawa</u>	Contingency theory <u>Locke, Schweiger, &amp; Latham; Vroom</u>	Managerial opportunism <u>Machiavellian managers</u>
		New plant design; self directed work teams	Shop floor, purchasing, customer service	(1) where managers don't have information (2) unstructured problems (3) subordinate acceptance critical to implementation (4) goals of subordinate consistent with company	Where managers need to further their own ends
<u>Limitations</u>	Inappropriate in high power distance settings; not always integrated with other functions	Faddish popularity; half-hearted attempts; works best in good companies- success attributed to TQM may be correlational only		Employees wait to be asked- they are not managerial commitment to reliance on data rather than power	Short term & exploitive; fosters mistrust
<u>Advantages for companies</u>	Young educated workers want to be involved; useful in turbulent environments	Demonstrated success across cultures (Japan, Mexico, US); high appeal for managers as it boosts productivity & lowers costs, without reducing hierarchical domination		Situation specific	Maintains domination
<u>Priorities within business organization</u>	Human dignity; autonomy	Profit through quality; Pride in workmanship	Profit; optimization		Maintenance of power for manager
<u>Domain assumptions regarding employee involvement</u>	Ethical imperative; essential for democracy; autonomy is desirable	When coupled with SPC, effective method of improving work processes	Use depends on situation		Managers use it as tool when it suits their needs
<u>Possible impact of domain assumptions on bias or parochialism of proponent when viewing results of data-based diagnoses described in present case study</u>	Negligible involvement in oppressive machine bureaucracy	Increased involvement central to lowering the cost of quality and boosting productivity; employees clearly prefer involvement	Increased involvement due to structure of work within production unit; not generalizable to levels of hierarchy where coordination is managerial focus		Win-lose approach; managers win from lower costs/higher productivity- employees lose because all they get is chance to feel better about working harder
<u>Key domain assumptions in each perspective listed</u>	Too limited to low power distance settings for international diffusion; utopian for current operations in many American companies.	Holistic managerial approach- valued by managers. Has been associated with positive outcomes. Transferable to Latin America.	Emphasis on situational nature of involvement does not engender managerial commitment to reliance on data-based dialogue; tendency to rely on hierarchical power.		Employees get squeezed; managers share little of gain or power.

Both the high involvement and quality proponents seemed to share a profound sense of conviction. Ishikawa (1985) described what he referred to as his "hope and prayer":

That Quality Control and Quality Control circle activities be spread everywhere in the world, that quality all over the world be improved, that cost be lowered, that productivity be increased, that raw materials and energy be saved, that peoples all over the world be happy, and that the world prosper and be peaceful (p. 11).

Deming (1986) began many of his chapters with a quote from the Bible. He was described as a deeply religious person with a mission that kept him internationally active until his death at the age of 93 on Dec. 20, 1993. To clarify, I perceive a strong correlation between what he saw as the pride of workmanship in quality and the more metaphysical concern with employee involvement. Scholars (Lawler, 1992; Pasmore & Fagans, 1992; Sashkin, 1984) exercise the restraint in which they were trained but their "hope and prayer" for employee autonomy through empowerment or high involvement was evident as well. Quality and/or employee involvement are subjects people feel strongly about, topics to which they devote their professional lives.

The structural assumption of autonomy was fundamental to the argument presented by proponents of high involvement. Lawler (1992) values autonomy for

employees so that they feel empowered within the company. Sashkin (1984) believed that although his review of the research clearly suggested that participation was beneficial to organizational functioning, the matter was fundamentally an issue of values and ethics. He saw participation as positively impacting performance, productivity, and employee satisfaction because it met the basic work needs of increased autonomy and meaningfulness and decreased isolation. This philosophical stance has a large following amongst organizational development practitioners and is a cornerstone of the field's efforts to humanize the workplace.

However, the ethical stance is apparently not as popular amongst American managers. In a study of employee involvement sent to the U.S. Fortune 1000 firms, Lawler, Mohrman, and Ledford (1992) found that of the 313 firms that responded the most common reasons for implementing employee involvement were the following: to improve productivity (66%) and to improve quality (75%). Only 19% stated that their motivation was due to ethical or value reasons, the lowest rating given among 10 choices (p. 10).

To what extent then is high involvement relevant to the present discussion, given the high power distance



setting where one could assume it would be even less of an ethical imperative than amongst American managers? By better understanding the term empowerment it will be demonstrated that the alternative term low involvement is more appropriate for the case context.

Spreitzer's (1992) definition of empowerment was the only one found that was constructed through empirical research. As part of a managerial development program, she collected data from 279 of the 3,000 participating middle managers of a major U.S. based multinational corporation. Interviews were used to develop a construct of empowerment and then a series of survey instruments were administered to test it. Subsequent analyses supported the validity of her construct of empowerment within the workplace. She saw empowerment as comprised of the following four factors: meaning, competence, self-determination, and impact. Specifically, meaning refers to the respondents seeing work as important, meaningful, and something they care about. Competence means that the work that must be done is within one's capabilities. Self-determination denotes significant autonomy, considerable freedom and independence, and being able to use personal initiative in carrying out one's work. Impact refers to feeling that one has some control and influence over what happens in one's department.

The kind of low involvement referred to in the present research is therefore defined as involvement where meaning, competence, and impact were present but self-determination was absent. Based on the previously mentioned study by Hofstede (1980), one could infer that high power distance is inconsistent with self-determination at lower levels within Central American organizations.

What then would a cognitive framework for implementing low involvement within a total quality management program look like? What contingencies would a manager have to consider? In the earlier discussion, the importance of high power distance, allocentrism, and the strong organizational culture were all noted. In the following discussion the cognitive framework of contingencies leaders could consider within the specific organizational context will be explored.

Based on research with thousands of managers, Vroom (1991) found that managers should not use involvement when any of the following criteria are met: (1) they possess all the information required, (2) the problem is well structured, (3) the acceptance by the subordinates of a decision is not critical, and (4) the personal goals of the subordinates are inconsistent with those of the organization.

The project selection checklist (Scholtes, 1992) previously mentioned established contingencies, albeit of a political nature, for employee involvement. These could be summarized in the following manner: (1) the project should be crucial to the business, (2) there must be managerial consensus that it is a priority, and (3) enough cooperation exists to enhance the probability of success.

An additional contingency found within the quality approach is that it emphasizes the obligation of the manager to participate effectively in systemic analysis. Deming (1986) believed that many American managers themselves could not participate effectively in problem-solving and continuous improvement because they simply did not understand the business. Deming insisted that American managers must be taught the work processes of the company. He believed that the Japanese had an advantage because Japanese managers began at lower levels of their organizations. This provided them with "hands-on" production experience. He observed that some American companies hired educated people and made them managers of work processes with which they were not totally familiar. He viewed such managers as handicapped in their efforts to contribute to the improvement of systems and processes.

Therefore, one could infer that in an organization where the managers are generally able to carry out the production related tasks they ask others to perform, due to hands-on experience with work processes, they would be selective in their use of participative practices. There could be problems to which they have already developed answers. Thus it seems likely that managers promoted from within would tend to use employee involvement selectively; their active participation in problem-solving could complement or even supplant the participation of subordinates.

Another contingency is preservation of the existing structure. Lawler (1992) reflected on involvement in the following discussion of total quality management (TQM):

In several respects, it is not surprising that total quality management is more popular than the high involvement approach. TQM ... requires less organizational change than does high-involvement management and, as a result, is less threatening. ... Although the total quality approach stresses employee involvement, the type of involvement it stresses is limited to allowing employees to make suggestions and control certain elements of the production process and the quality-control process. It does not suggest that organizations be restructured and redesigned to emphasize employees having the information, knowledge, power, and rewards that will give them a business experience. Instead, employees are given information, knowledge, and power to improve certain elements of the organization's work processes (p. 326).

Like other change efforts functioning within a parallel structure alongside the hierarchy (Kanter, 1983), total

quality management does not necessarily disrupt the established hierarchical structure. Employee involvement is constrained by established patterns of domination.

Lawler (1992) stated that total quality management:

... is particularly comfortable for senior managers because it does not require them to make radical changes in their sense of being in control over operations; in fact, it may give them a greater sense of control" (p. 327).

Thus, the established hierarchy structurally limits the involvement of employees to areas where management solicits their involvement.

Given all the contingencies discussed above that constrain employee involvement in such settings characterized by high power distance, what would enhance involvement? One important factor is data. It allows subordinates to be more assertive than if they could only base their comments on the power based political reality of the superior-subordinate relationship, where they are by definition inferior. Assertiveness in dialogue means that assumptions are questioned, logic challenged, biases revealed and double loop learning (Argyris, 1962) is valued. Implicit in the dialogue is cooperation toward achieving the common objective of solving a problem. Data-based dialogue is the functional equivalent of the quality story (Lillrank & Kano, 1989)-- the standardized format subordinates in Japan use to present information

to their superiors within total quality management. In the context where the quality story is presented, managers refrain from making decisions based on intuition and subordinates are involved through the combined routine of teamwork and data analysis. These two factors, the commitment to restrain their impulses to exert power through the use of intuition, and the standardized format for subordinates to present information could be construed as the essential structural elements of data-based dialogue within total quality management.

These structural elements can also be found in situations where total quality management is not practiced. Where superiors work with subordinates in a "hands-on" fashion -- where they are both attempting to perform a task -- and the subordinate is seen by the superior as competent, data-based dialogue also ensues.

The question to be asked is whether a "hands-on" managerial relationship between the supervisor and the subordinate can complement and be complemented by total quality training?

Based on the preceding literature review, I offer the following propositions:

(1) How can leaders deal successfully with existing cultural and organizational contingencies while

implementing total quality management, when this innovation promotes behavior contrary to the organizational and national culture?

(2) In such a setting, how does the adoption process affect and become affected by established work structure and routine interaction patterns between superiors and subordinates? In particular, how does the total quality management implementation process interact with the practice of data-based dialogue when the implementation actually reaches employees who are already engaged in this practice?

### CHAPTER 3 METHODOLOGY

This chapter describes the following points: grounded theory building (Glaser & Strauss, 1967), the methodological orientation I used; the case context; and the methodologies employed (i.e., participant observation, survey, and interviews). I will also explain how I selected the subjects for the survey and interviews and the variables for analysis from the survey. These methods were all part of a case study.

#### Grounded Theory

Glaser and Strauss (1967) made a number of points that are relevant to the present case study. The case study was an effort to build theory around the role of leadership in the implementation of total quality management. I began to ground my theory about leadership during the participant observation period. The general manager in Playa Negra tended to adopt very specific objectives for the entire organization and implement them throughout the organization. For example, he insisted that all 520 monthly employees take an effective communications course. I likened his style to a locomotive pulling a train down a track. The other general manager in Bocagrande seemed to thrive on crises of which there were many (e.g., strikes, earthquakes, floods, high winds, and assorted political issues). He



was appreciatively described as a "pusher" by his colleagues and subordinates. However, his managerial style was more ad hoc and opportunistic -- ad hoc in the sense that his opinions on assorted matters would change quickly and opportunistic in his approach to employee involvement in that he coopted the quality council to pursue his own agenda. His overall managerial approach seemed to be culturally driven; he had a profound regard for the life style and the way things were done in LITEP production divisions as well as a sincere concern for the welfare of the workers. His approach to employee involvement was not explicit but rather implicitly or even unconsciously driven by the cultural expectations imposed on his role as the general manager. However, this culture he so respected also allowed him the power to act capriciously in an ad hoc and opportunistic manner.

I eventually contrasted the policy deployment of Playa Negra versus the managerial opportunism of Bocagrande although I did not completely conceptualize the differences until just recently, 18 months after I finished the participant observation phase of the research.

By contrasting the impact of the different managerial styles regarding employee involvement in the

two locations through the survey as well as through the interviews I came to see the general managers' approaches as specifically different regarding involvement and implementation of total quality management. Only much later after all the data gathering had been completed and I had written several drafts of the research was I able to conceptually contrast the two approaches-- i.e., policy deployment versus managerial opportunism. Both managers were strong in their use of direct and unobtrusive controls; they ordered things to be done or relied on the organizational culture to support that which they wanted to do. Neither were fervent advocates of participation as both had a great deal of experience in production and were probably the most capable and intelligent managers in their respective locations. They told people what to do when they felt they knew what had to be done and asked for participation only when they needed more information or commitment from subordinates. The general manager of Playa Negra said he would never ask others to participate when he knew what he wanted to do. The general manager of Bocagrande was more opportunistic because he tended to be somewhat ad hoc in his style.

Both the qualitative and quantitative data enabled me to better understand the differences between the two

leadership styles as well as the differences between working in a team in a production unit (i.e., data-based dialogue) versus management by results in a hierarchy and the implications of this for total quality management. The research was inductive as I used several methodologies to eventually discover and ground my theory. Glaser and Strauss (1967) believed that both quantitative and qualitative measures are necessary, in many instances, not to test the other but rather as different forms of data on the same subject. The various methodologies used are discussed below.

Glaser and Strauss (1967) used the concept of theoretical sampling to describe the process of jointly collecting, coding, and analyzing data to decide what data to collect next and where to find them, in order to develop theory as it emerges. One may begin with a partial framework "... designating a few principal or gross features of the structure and processes" (p. 45) from the research context. I began with an appreciation for leadership and traditionality developed during the participant observation phase. This led me to the survey where I determined that I should focus more attention at the production unit level, a level of the hierarchy where I had spent very little time during the months of participant observation. Had I done so I would have had

an opportunity to gather the data through observation. In this sense, the survey merely guided me rather than verifying a theory derived through a logico-deductive process.

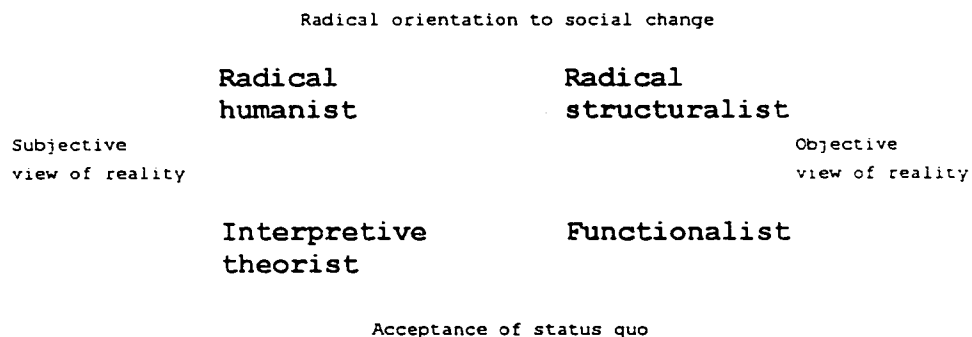
My use of multiple methods was analogous to adjusting a compass. The participant observation provided me with a vague direction but no specific point of destination. My 26 months of observation made me curious about many things with the two more prominent conceptualized as traditionality and managerial control. However, what does this mean other than what we are today is a reflection of what we were yesterday and managers have a great deal of control in hierarchies, especially geographically isolated ones with strong organizational cultures that emphasize loyalty, obedience, and high power distance? The next step was to look at an intervention in the system to better understand it. To focus the inquiry a survey was conducted contrasting those who were part of total quality management, with those who were not. The purpose was not to evaluate the total quality management intervention but rather to use the intervention to surface the information regarding leadership and data-based dialogue within the production units (i.e., the specific context in which the total quality management intervention was embedded). Finally,

as the interference to the magnetic fields was cleared and the compass became increasingly accurate, a very specific direction was found and interviews were conducted contrasting perceptions of foremen with those held by unit managers to better understand data-based dialogue.

Another critical methodological issue is the paradigm of the researcher. Gioia and Pitre (1990), in their discussion of multiparadigm research, built on the work of Burrell and Morgan (1979). Burrell and Morgan conceptualized the different orientations of sociologists in terms of their view toward change or maintenance of social structure and a subjective or objective view of reality. Their perspective is shown below:

Figure 3.1

Burrell & Morgan's Classification of Sociologists



Thus, for example, interpretive theorists differ from functionalists in their subjective versus objective view

of reality but neither promote radical changes in the social structure; they accept the status quo. Another example is the radical humanist differs from the functionalist on both dimensions -- the view of reality and the orientation to social change. The radical humanist adopts a subjective view of reality and promotes social change whereas the functionalist has an objective view of reality and accepts the status quo.

Gioia and Pitre (1990) discussed theory building at the margins of the different quadrants. I shall move between the functionalist and the interpretive mode, not unlike the actors within LITEP, Inc. -- e.g., there was a decidedly functionalist reason for the production facilities' existence and a pronounced task orientation to how work was done. Total quality management was perceived as a way to enhance functionalist goals (e.g., lower costs and higher quality) with no intention of radically altering the structure. However, the traditionality of the setting interjected a powerful element of social construction that was sometimes difficult for outsiders, such as visitors from the corporate offices, to understand; an interpretive dimension was essential in trying to understand a different culture. Cultures are by definition socially constructed. Thus, the survey appeared to have a strong

functionalist orientation to it wherein behaviors were measured that were primarily related to enhancement of the productive capacity of LITEP, Inc. and measured using logico-deductive methods (i.e., statistical analyses of survey variables). On the other hand, the period of participant observation had a decidedly interpretive dimension to it as I first attempted to comprehend the socially constructed reality of LITEP, Inc. Again, there was no real change orientation as the structure was accepted as a given; neither the radical humanist nor the radical structuralist dimensions were pursued.

Gioia and Pitre (1990) describe research at the transition zone between the interpretive and functionalist quadrants as structurationism (Barley, 1986; Giddens, 1979; Poole & McPhee, 1983; Ranson et al., 1980; Riley, 1983). Gioia and Pitre (1990) state:

In brief, structuration theorists focus on connections between human action (in the form of structuring activities) and established organizational structures (cf. Riley, 1983). Proponents of this theory do not treat structuring as separate from structures; they consider social construction processes together with the objective characteristics of the social world (p. 592).

The broad theoretical combination of the action of processes within the structure of hierarchy, conceptualized as structuration, seems to fit total quality management. Total quality management is intended

to create different connections between human actors through the establishment of new interdependencies (e.g., cross-functional teams) and new ways of interacting within the hierarchy (e.g., data-based dialogue). However, this is done within the organizational structure of hierarchy, including domination through the direct control of the general managers (in the case of LITEP, Inc.). The case context is described to orient the reader so that the application of the methodologies and the resulting findings can be understood.

#### The Research Setting

Our discussion of the research sites will include general information about the company, a description of the production function, and a summary of the adoption process of total quality management within the company.

#### General Information

LITEP, Inc. (Labor Intensive Tropical Export Product, Inc.) is a family controlled U.S. based multinational corporation with very extensive production operations in Latin America that produce LITEP for industrialized markets, mainly North America and Europe. The company is one of the 3-4 major players in the industry. Several production divisions are located in the Central American country of Morazan. Each employs



approximately 5,500-6,500 employees of whom around 500-550 are salaried; the rest are union members. LITEP, Inc. is the largest private employer in the country. During the 1980s the only areas of the country that developed economically, in real terms, were those located around the production divisions. LITEP, Inc. pays tens of millions of dollars each year in export and payroll taxes to the government of Morazan-- it is a very significant component of the national economy.

The divisions are economies of scale operations; they are focused on exported volume of high quality LITEP. Quality is vital to the customer and volume is the key to lowering costs and increasing efficiency and productivity. Volume and cost parameters are the primary indicators that executives use to evaluate the budgets of the operation. This tension between a strategic emphasis on low-cost, commodity-like production versus maintaining market share through the sale of high quality LITEP is the basic dilemma for executives. They must satisfy both masters-- low cost and high quality. The solution to the dilemma is high volume production to dilute costs.

Historically the company provided hospitals, schools, public utilities, recreational facilities, airports, roads, and other such components of a community's infrastructure. However, the move to

withdraw from the provision of infrastructure began more than 20 years ago and has continued. Thus, during the study reported here, LITEP, Inc. was attempting to confine itself to the production of high quality LITEP and interact with the surrounding community as a production partner rather than a paternalistic total institution.

Though the total institution approach had changed, the village-like, relatively closed environments around the divisions created social situations that were more extreme than those found in other modern organizations; the distinction between one's work and social roles was blurred in such company towns. One's status in the community tended to reflect one's status in the company. The communities were to a very large extent made up of people from the company. Work was the focus of life; distractions and sources of recreation were limited. The intensity of the focus on work probably tended to accentuate one's perceptions. The company was very figural in the gestalt of workers' lives.

Over the decades the role played by the company in the local economy changed from one of paternalistic domination, to a socio-economic institution, to more of a business enterprise in the 1990s. The transition is shown in the following table:

Table 3.1

Transition in the orientation of LITEP, Inc. to its local environment in Bocagrande and Playa Negra

	Paternalism-----> Socio-economic -----> Economic		
	(before 1970s)	(1970s-1980s)	(1990s)
National government:	Accommodated company.	Imposed export tax on the company and expropriated land. Stable exports.	Independent of company. No obstruction of exports. Insisted company comply with legislation.
Social services:	Company provided schools and hospitals.	National government took over schools and hospitals.	Almost no company social services. Health insurance provided by company. Gov't provided social security.
Community infra-structure:	Company established community infrastructure.	Government took over power and water in Playa Negra.	Company continued to provide utilities in Bocagrande due to its geographic isolation.
Housing:	Provided by company. Specific blueprints for each occupational level provided by U.S. engineering office in headquarters. Standard houses built in tropics.	Little new construction in Playa Negra. Company moved offices in Bocagrande and built new houses.	Company began to sell houses to employees. Stopped building new ones aside from earthquake replacements. Company wanted to withdraw from housing maintenance. Still under legal obligation to provide housing to most unionized workers.
Labor:	Labor imported from other countries. Dominat: on.	Unions organized.	Politically active powerful unions. Almost no involvement in TQM.
Managers and professional employees:	All expatriates in neo-colonial environment.	Latins filled middle management positions.	First Latin general managers named. Almost all non-executive positions filled by Latins; 5 Americans or Europeans out of 13,000 employees.

### Production Function

I will now describe the production setting in Playa Negra, the focus of the interviews. The non-production office work was comparable to offices anywhere and will not be described. Production people worked long hours five and a half days per week under demanding conditions with a powerful union workforce. Managers had to respect the close to 300 clauses of the union agreement plus whatever local arrangements were made within the production unit. Each production unit consisted of approximately 250 full-time workers. The Playa Negra operation contained 18 such contiguous production units. The foremen managed crews of unionized workers in the production area. The 18 production unit managers supervised the foremen and administrative staff. Each of the three area managers supervised six production units. Two area managers traveled from the main office, about 30 minutes from the production area while one resided in the production area.

The area managers spent the bulk of their time in the production area; it was not a desk job. The area manager had to be in frequent contact with the production units for a variety of reasons including the following:

- (1) Production criteria and targets were revised frequently to get the exact amount of output needed; this

required careful monitoring and communication so that the shipping schedule was respected.

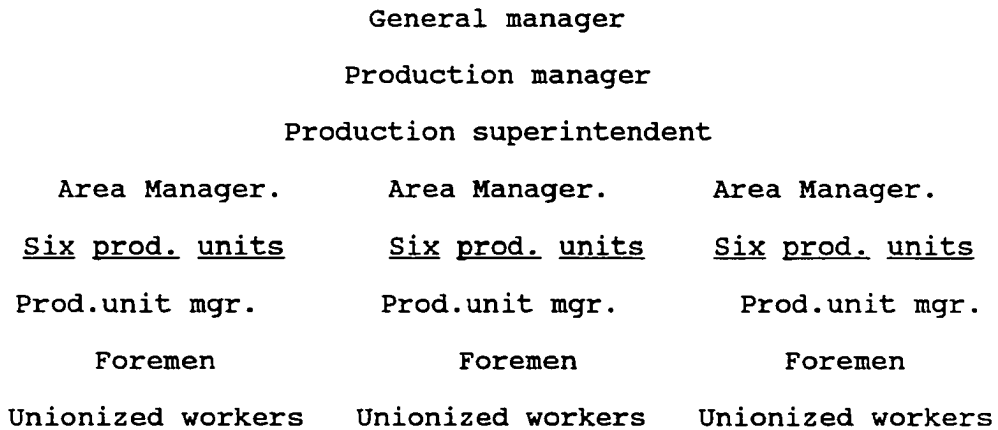
(2) When quality problems were isolated, the area manager usually visited the production unit to ensure that the production unit manager was taking appropriate action. Quality fluctuations were common due to variable producing, handling, packing, and shipping conditions.

(3) In a labor intensive operation such as Playa Negra, union complaints and grievances were frequent and often required the attention of the area manager in the field. The area managers conferred with the labor relations lawyer and department head to present a unified approach consistent with the collective bargaining agreement, the law, and standard practices. Allowing each production unit manager to interpret labor policy and regulations could have caused excessive variation in practices and provoked a reaction from the union leadership.

(4) The engineering and materials departments responded to the requests of the production units according to the established bureaucratic routines. When delays resulted or non-routine requests emerged the area manager was called upon by the production unit manager for assistance.

The levels of the production hierarchy were the following:

Figure 3.2

Production hierarchy in Playa Negra

The foci of the research were at the general manager level and within the production unit. The union workers were not as yet involved in the total quality management program with the exception of a special project within the electrical department of Bocagrande. The description now continues with the implementation of total quality management within LITEP, Inc.

Adoption of Total Quality Management

Throughout the 80's and 90's a number of different measures had been taken by the company, at the corporate level, to improve quality, including the following:

(1) naming a quality control coordinator for the region who provided consultation to troubled areas and diffused innovations to production operations; (2) quality bonuses to reward production, engineering, and shipping personnel

for desirable quality outcomes in the market; (3) short term rotations of quality control and production personnel from the Tropics to the North American and European markets; and (4) improvements in processing, packaging and particularly shipping, in terms of speed and storage techniques.

Still, a more comprehensive approach to quality was sought. The director of organizational development and the vice president for engineering and quality had both come to LITEP, Inc. from a major food and beverage producer that had implemented a total quality program. They proposed this program to the CEO of LITEP, Inc. who supported it at the corporate level.

Playa Negra was one of the first sites where total quality management was implemented in late 1991 and Bocagrande followed in March 1992. The objectives of the training programs administered in both sites were similar, probably because they were developed by the same organizational development section at headquarters. The objectives were as follows: (1) become familiar with the basic elements of total quality and understand what total quality can do for the company; (2) understand the key roles in implementing the transformation to total quality and how to work within a total quality culture; and

(3) learn the basic steps in beginning a total quality program.

The training seminars were motivational in design; the intent was to build enthusiasm for the process and get people speaking about total quality management and shift from inspecting the final product to analyzing the processes used to produce, pack, and ship the product. The transition from traditional quality inspection of the final product to continuous improvement of total quality management of work processes involved the following changes: (1) including the customers, mainly internal as these were production operations, in the analysis and revision of work processes; (2) focusing on the prevention of quality problems rather than inspection; (3) management of the process rather than management by results; managers were to work with subordinates in problem solving rather than simply revising results for variances from targets; (4) participative employees rather than subordinates waiting to be told what to do; (5) providing tools to teams of subordinates who would analyze problems using simple statistical tools such as Pareto charts, "fishbone" or cause-effect diagrams, control charts, histograms, and flow charts followed by presentations to managers committed to listening rather than deciding on intuition; and (6) continuous



improvement of work processes ultimately reflected in higher quality scores and customer satisfaction in the market rather than relying on a commodity-low cost producer approach.

There was no connection established between the total quality management program and compensation. Management viewed it as part of the participants' duties.

In Playa Negra, in addition to the introductory seminars given by the total quality management coordinator, dozens of employees attended workshops conducted by external consultants. Topics covered included facilitation skills and leadership in participative workplaces. Consistent with standard total quality management training programs generated by organizational development oriented consultants, the LITEP, Inc. internal consultants also focused little attention on statistical process control training. This was a significant departure from the training recommended by consultants who follow Deming's approach (e.g., Scholtes, 1992). Therefore, the quality director at the corporate level arranged for a consulting firm, established by one of Deming's students, to cover this as well.

In Bocagrande, seminars were conducted for 140 lower level salaried employees but with the departure of the

human resources manager, the introductory seminars stopped in July of 1992 and did not resume until a year later, after a group of skilled and enthusiastic facilitators had been trained, at the behest of the quality council. The regional total quality consultant and the organization development consultant from the U.S. headquarters continued to support the quality council in Bocagrande.

Methodologies: Participant Observation,  
Survey, and Interviews

I was a participant observer from May 28, 1990 until July 23, 1992. During that time I spent approximately one third of my time in Playa Negra, a third in Bocagrande, and a third elsewhere (i.e., the capital, traveling, and seeing my family on weekends in a neighboring Central American country). As a participant observer I attended staff meetings, conversed with the LITEP, Inc. employees, conducted over 150 interviews, spoke frequently with corporate visitors from the U.S., and interacted socially with the residents of Playa Negra and Bocagrande who worked for LITEP, Inc. I discuss the results of my observations in the findings.

Survey

Subsequent to my departure from Morazan, I developed a questionnaire discussed below to measure organizational

changes in relation to the total quality management program. It was translated by an educated native speaker from the region and back translated through revision by two educated bi-lingual professionals (i.e., the total quality coordinator in Playa Negra and me).

#### Selection of Subjects for the Survey

Prior to describing the methodology one should note that before beginning the survey research I requested, and was granted, the approval of Case Western Reserve University for the use of human subjects.

I contrasted the results of the implementation of total quality management in Playa Negra with the results in Bocagrande; that is, I looked for significant differences between the total quality management participants with the non-participants in each of the two sites.

The subjects in Playa Negra were divided into two groups, those involved in total quality management (n=47) and those uninvolved (n=45). I attempted to include all of the participants in total quality management, excluding the members of the council. I chose to exclude the executive level of the organization in Playa Negra as they were practically all on the quality council; there would not have been a group of non-participants for comparison purposes from a comparable level. I then drew

a random sample of comparable size from the same level of the organization as the total quality management participants. The personnel were ranked by the job classification system from job level 2 (e.g., janitors) to 52 (e.g., general managers). The employees who participated in total quality management but were not part of the council ranged from job level 6 to 35. A personnel roster of all the people in those levels was used to randomly select those who were not total quality management participants.

In Bocagrande the subjects were also divided into comparable groups, total quality management (n=33) and non-total quality management (n=37). There were so few in the total quality management group that I had to use the executives as well. Two stratified random samples of non-participants from comparable levels of the organization were drawn from an employment roster.

The two locations were not exactly the same but similar in many respects. The ethnic makeup of the monthly employees who responded to the survey was almost uniformly Latin with the exception of the European general manager in Bocagrande. People at the level of those who responded to the survey could have worked comfortably in either location. Both general managers, several department heads, and some lower level monthly

employees had worked in both locations. The technologies employed in both locations were essentially the same and the work was very labor intensive. The last major technological change occurred in the 1960s in the packaging of LITEP. Several major innovations in shipping were taking place while the research was conducted but had not as yet been diffused throughout the organization. Minor production related changes were ongoing. The total amount of LITEP exported was comparable, and both locations reported to the same vice president. Both tended to be multigenerational-- that is, many families had worked for the company for several generations. The demographics of the subjects from Playa Negra and Bocagrande are as follows:

Table 3.2  
Demographics of survey participants for Playa Negra

<u>Department</u>	<u>Total</u>	<u>TOM</u>	<u>Non-TOM</u>
Production	44	22	22
Controller's office	12	5	7
Materials	9	4	5
Engineering	9	3	6
Transportation/exp.	5	3	2
General manager's office	1	-	1
Quality control	7	7	-
Packaging	2	2	-
Labor relations	2	-	2
Research	1	1	-
<b>Total</b>	<b>92</b>	<b>47</b>	<b>45</b>
<u>Years of service</u>	<u>Total</u>	<u>TOM</u>	<u>Non-TOM</u>
0-5	5	1	4
6-10	25	14	11
11-15	24	13	11
16-20	10	4	6
More than 20	25	13	12
Missing information	3	2	1
<b>Total</b>	<b>92</b>	<b>47</b>	<b>45</b>

Table 3.2- continued

<u>Age</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
18-25	1	-	1
26-35	37	23	14
36-45	34	16	18
Over 45	17	8	9
Missing information	3	-	3
Total	92	47	45

<u>Gender</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
Male	84	46	38
Female	8	1	7
Total	92	47	45

<u>Occupational level*</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
Assistant foremen/unskilled	7	1	6
Foremen	31	15	16
Skilled technician	13	7	6
Unit manager/assistant	30	18	12
Supervisor/professional	10	5	5
Missing information	1	1	-
Total	92	47	45

\* The survey in Playa Negra does not include bonus eligible executives nor the lowest level (e.g., janitors, drivers etc.) nor experienced TQM facilitators.

Table 3.3  
Demographics of survey participants for Boca Grande

<u>Department</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
Production	28	9	19
Controller's office	12	3	9
Materials	3	-	3
Engineering	9	7	2
Legal	1	-	1
Transportation/exp.	4	3	1
General manager's office	5	5	-
Quality control	3	3	-
Labor relations	5	3	2
Total	70	33	37

<u>Years of service</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
0-5	4	2	2
6-10	13	6	7
11-15	15	6	9
16-20	11	6	5
More than 20	24	12	12
Missing information	3	1	2
Total	70	33	37

Table 3.3- continued

<u>Age</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
18-25	3	1	2
26-35	15	5	10
36-45	30	17	13
Over 45	16	7	9
Missing information	6	3	3
Total	70	33	37

<u>Gender</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
Male	67	31	36
Female	3	2	1
Total	70	33	37

<u>Occupational level</u>	<u>Total</u>	<u>TQM</u>	<u>Non-TQM</u>
Assistant foremen/unskilled	1	0	1
Foremen	2	-	2
Skilled technician	14	5	9
Unit manager/assistant	7	1	6
Supervisor/professional	31	14	17
Department head/manager	15	13	2
Total	70	33	37

Specific Survey Measures

The questionnaire consisted of three parts:

(1) portions of the Socio-technical Systems Benchmark Survey (Sabiers & Pasmore, 1992) were used to make up 6 of the 10 variables analyzed, (2) questions I developed based on research at Case Western Reserve University, conducted by James Ludema and Mary Fagans, along with a variable that I used from an employee opinion survey done in Playa Negra in Dec. 1991, and (3) organizational commitment (Mowday, Steers, & Porter, 1979).

The Sabiers and Pasmore instrument consists of twenty scales used to measure the degree to which an organization follows sociotechnical systems design principles. I chose this instrument as it covered the

various components of total quality management and I could not find an instrument specifically directed at total quality management that was as reliable as the Sabiers and Pasmore instrument and that had been used in many organizations. Each scale consists of a series of questions that Sabiers and Pasmore found fostered internally consistent responses. The nine scales I did not administer in LITEP, Inc. measure variables I deemed inappropriate for the setting and are listed in the appendices. I thought these scales inappropriate for one or more of the following reasons: (1) they were for capital intensive environments-- LITEP, Inc. was not as capital intensive as a North American manufacturing facility; (2) some of the questions inferred a level of employee control over pay and benefits that was not present in LITEP, Inc.; (3) questions relating to diversity were not critical as the salaried personnel employed by LITEP, Inc. were fairly homogenous; and (4) I substituted the organizational commitment measure for the three questions that made up general satisfaction.

Some of the questions in the remaining scales were modified to make them more appropriate to the Playa Negra setting. Some were dropped as they implied a higher level of participation (e.g., role in selecting and evaluating superiors) that was generally not present in



LITEP, Inc. Even though the instrument was altered, reliability checks were run to ensure that the variables used were founded on internally consistent responses.

The following are the remaining scales that proved reliable (i.e., Cronbach alpha greater than .66): inclusion, support for innovation, facilitative leadership, cooperation, upward influence, technical agility, and activity feedback.

The Sabiers-Pasmore variables that proved statistically significant in at least one of the tests run to contrast groups in the LITEP, Inc. data were the following:

**Inclusion:** This variable measures perceptions relating to the extent to which one interacts with other levels and departments of the organization, is privy to financial and objectives related information, understands how decisions are made, and feels like a partner who is heard. Access to information is a critical aspect of involvement (Lawler, Mohrman, & Ledford, 1992).

**Support for innovation:** This scale measures perceptions relating to good ideas being put into practice, being encouraged to try new ways of doing things, and being

rewarded for coming up with new ideas. This attitude is fundamental to the continuous improvement process.

**Facilitative leadership:** This scale focuses on receiving clear feedback, messages, and guidance from one's superior plus the autonomy to figure out best how to work. Supervisors need to demonstrate these skills if involvement is to be successful.

**Cooperation:** This relates to assistance from co-workers and is basic to collaborative problem solving.

**Upward influence:** This scale measures perceptions of how well the supervisor listens to one's opinions, solicits advice, and whether or not the subordinate is consulted on job changes, and again, is fundamental to the managerial style of leaders within employee involvement programs.

**Activity feedback:** This variable measures one's perceptions of feedback from others regarding the quality of one's work as well as the ability to give feedback to others. Quality improvement requires feedback.

Technical efficacy and organizational commitment were included in the survey but in retrospect there seemed to be no reason why they would differentiate the total quality management participants from the non-total quality management participants.

In relation to the second group of questions mentioned above, there were three variables that were used. Group efficacy dealt with one's attitudes toward working in groups. The positive attitude toward total quality management variable measured the participant's attitudes, as the name indicates. The third variable dealt with a potential selection problem; it was conceivable those viewed most positively by their superiors were chosen to participate in the total quality management program. Therefore, I included a series of questions that made up the variable "positive view of one's superior." This was one of the factors that came out of the employee opinion survey of December 1991. This variable was made up of questions that dealt with the superior's willingness to consider and act on suggestions for improvement, the perceived adequacy of support received from one's superior, and the feeling that one's superior was accessible for discussion of work related problems. If the total quality management

participants scored significantly higher than the non-participants, one could question if the total quality management participants were influenced by their relationship with their superior as well as the total quality management process. There were no significant differences between the total quality management participants and the non-participants; there did not appear to be a selection effect.

#### Interviews

Based on the findings from the participant observation and the survey, interviews were conducted in July 1993 in Playa Negra with production foremen and unit managers as well as six employees from other several other departments, both participants in the total quality management process and non-participants. The production people were interviewed to attempt to explain the difference between working together, as was the case with the foremen and their production unit managers, and the management by results approach used by the area managers in supervising the production unit managers. The non-production people were interviewed to gain a better appreciation of how non-production people perceived the total quality management process in general. I conducted the interviews over a five day period during which time I also conversed extensively with the total quality

management coordinator and the senior line managers of the production department, including two of the area managers, superintendent, production manager, and general manager. I also spoke with the controller, the former quality council leader who had been replaced by the production manager that week.

To control for the influence of other variables, I focused the interviews on one department-- production. I conducted interviews there during July 19-23, 1993, one year after I had terminated the participant observation phase of my research. The interviews were used to better understand how the foremens' attitudes differed from the production unit managers' attitudes, as recorded in the survey. I also wanted to capture the language of the respondents.

Each interview took approximately 40-45 minutes with several as brief as 20 minutes and others as long as 50-60 minutes. The length varied as some people had more to say than others; I conversed with the more informative subjects around the questions asked. The interviews were conducted entirely in Spanish. I learned Spanish as a Peace Corps Volunteer in 1973 and worked in Latin America speaking Spanish for a total of eight years; this experience made me relatively fluent. The interviews were transcribed in Spanish from tape recordings by a

Spanish speaking professional secretary residing in Central America. I translated the portions of the 406 pages of text that appear below and attempted to follow the meanings of their statements and precise words. I eliminated specific references to people, the company, and the industry.

The specific interview questions asked are listed in the appendix, with an explanation as to why they were used.

Selection of the subjects for the interviews. The subjects for the interviews were selected to better understand the context for data-based dialogue within the production units. Based on the survey results from Playa Negra, 13 of the 18 men who reportedly supervised more than 100 people were either production unit managers or their assistants. At the lower end, 10 of the 14 who reportedly supervised 11-50 were foremen. The distribution of the interviews conducted was as follows:

Table 3.4  
Distribution of respondents interviewed in Playa Negra

	TQM	non-TQM
Foremen	5	5
Production Unit managers	3	4
Other departments	3	3 (the only women)

The interviews with the participants from the non production departments did not provide insight into the questions researched. Therefore I excluded their interviews from the data reported here. Hence, the number of interviewees is 17-- i.e., foremen and production unit managers.

#### Connection of Specific Measures to the Propositions

The operational propositions were listed at the end of chapter two. The first proposition (i.e., policy deployment versus managerial opportunism) was assessed through data from both participant observation and the survey. The second proposition relating to data-based dialogue within the production units was analyzed using data from the survey and interviews.

## CHAPTER 4

### FINDINGS- SHORT STORY

I will begin with some introductory comments on why I wrote the short story and how I believe it enhanced the research process. We will then move to the text of the short story.

Glaser and Strauss (1967) emphasize the importance of one's experience within the research site and the need to convey the richness of the data. I found that describing this in purely conceptual or quantitative terms did not convey the impression I wanted to pass on to the reader. Some of these impressions not contained in the survey or interviews but observed during the participant observation included convivial interaction. The strong task orientation of the LITEP, Inc. production divisions was lightened a great deal by the levity the managers seemed to enjoy in their interactions with one another, at work, on the golf course, and in the bar. The national culture emphasized courteous, cordial, and convivial interpersonal conduct within the interactions between the employees that I observed. Layered over this was the organizational culture that was intensely task oriented. Latin culture made it pleasant and intense neo-colonial pressure over decades had made it highly productive.



I wanted to convey the convivial side of the interaction as well as summarize what I felt was important about the contrast between managerial opportunism, in the character of Karl, and policy deployment, portrayed by Armando. I felt this could best be done in a short story. In the literature review high power distance and allocentrism were discussed. Another cultural characteristics of interest to the present discussion is "simpatia" (Triandis, Marin, Lisansky, & Betancourt, 1984). I used the term conviviality to convey what I experienced in the LITEP production centers. "Simpatia" is a personal quality that enhances conviviality. A person with "simpatia" is someone who is "simpatico." Such an individual is fun to be with, likable, attractive, easy-going, and "... behaves with dignity and respect toward others, and seems to strive for harmony in interpersonal relations" (Triandis et al., 1984, p. 1363). Triandis and his fellow researchers believe that "simpatia" constitutes a cultural script or pattern of social interaction for Hispanics.

These authors performed the study with three different groups. In the first data set, they asked ninety male Navy recruits (41 Hispanics and 49 non-Hispanics) to respond to a questionnaire that described eight situations. The respondents were asked to estimate

the likelihood of a certain behavior occurring in the situation. In the second data set, one hundred twenty-two male Navy recruits (62 non-Hispanics and 60 Hispanics) were asked to indicate how likely a certain behavior would occur (e.g., how likely is it that a mother will admire a son?). Finally, in the third data set, one hundred five male Navy recruits (54 non-Hispanic and 51 Hispanic) were to indicate the likelihood of a particular behavior occurring in a variety of different social settings. The researchers found strong support for a *simpatia* cultural script amongst the Hispanic respondents. Hispanics expect more positive behaviors in positive social situations. There was an emphasis on harmony and the externalization of positive feelings.

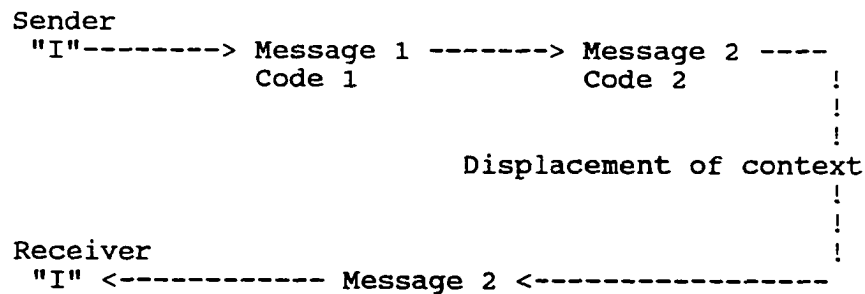
The short story I will tell takes place in two bars, places that reflected the conviviality and "*simpatia*" I wanted to convey in the story. The quotes are real and contextually correct but they were not stated by Karl and Armando to one another but rather to me in other settings.

Autocommunication is generally seen as the province of the artist or the diary writer. However, as Broms and Gahmberg (1983) stated, it can also be used with non-fictional and public documents. They draw on the work of Lottman (1977) who described the autocommunication

process as "I" to "I." In autocommunication, the transmission codes are perceived at two levels. The first level (i.e., code 1 shown below) is when a document is read and is understood for what the words logically express (e.g., the newspaper). If the reader gets excited about the document and relates it to his or her present circumstances, then the second level (code 2) is reached and the message transmitted to oneself is message 2. Schematically, autocommunication can be portrayed in the following manner:

Figure 4.1

## Autocommunication



In the autocommunication of research using grounded theory one is in a different context after leaving the site. One arrives at concepts while writing (e.g., managerial opportunism) months after the data has been analyzed. In a sense then, I believe one moves into code 2 and the message is altered in the process of

communicating to oneself. I believe this is consistent with Weick's (1979) retroactive sense making.

In the short story I use the character of Churasco, a company associate, to convey the convivial side. Churasco was burned on one side, including his cheek, at some point and acquired the nickname that means grilled steak, a metaphorical reference to his scar. The anecdotes attributed to Churasco were genuine as were all the others in the short story. San Juan is a fictional place and Bernal Flores is a fictional character though I constructed both through the use of characteristics of settings and people I observed within LITEP, Inc. in Playa Negra and Bocagrande. Bernal's role in the short story was to decide what policy to follow-- aligning the quality council with the manager's perception of total quality management (i.e., managerial opportunism) or saturating the lower levels of the organization with training and quality action teams (i.e., policy deployment) while the council moved toward the autonomy prescribed by the doctrine of total quality management. All the anecdotes and descriptive information were genuine as were the other characters.

We shall now undergo a metamorphosis and become eavesdropping flies on the walls of two bars where total quality management is discussed. The first bar is in San

Juan, an established production division of LITEP, Inc. where Bernal Flores has just been named the new general manager. Then we go to a regional meeting where the general managers of San Juan and two other large old production divisions, Bocagrande and Playa Negra, get together in the hotel bar after their budget presentations. The total quality management program is just beginning in San Juan where we now assume our role as the fly on the wall of the bar.

#### **Short story text**

Bernal Flore's wife was gone for a few days-- visiting her mother in the capital-- and since Bernal hated eating alone, he sat munching his sandwich in the bar. He had just been transferred back to the Tropics after a 6 month consultation assignment as assistant to the quality manager in Northern Europe. He had been assigned back to his native country of Morazan in Central America. He had just been promoted to the position of general manager of an old established production division, San Juan. Bernal was very familiar with San Juan; he spent his first 14 years there. His father had risen through the ranks to production manager, the highest position a Latino could have aspired to in the neo-colonialist era (i.e., the late 19th century until 1980). At age 14 Bernal went off to school in the US and

continued through college. He even did a stint in the U.S. Marine Corps. His father had retired at the time he went to boarding school but maintained contact with his former colleagues and in 1978 helped steer Bernal into the company after he finished his military service. Such nepotism helped maintain the strong organizational culture and traditionality of the organization.

In the company Bernal rose through the ranks in production in various countries and after 10 years became the production manager of the largest division in the company. He served in that slot from 1988 to 1992. He also had done a two year rotation as the regional quality manager immediately before that from 1985-87.

Bernal felt qualified to handle the general manager's job in spite of the ever-present problems. Like his old boss said, "Stop bitching about problems. If there weren't any, you wouldn't have a job." He knew he would face many dilemmas. For example he had to cut costs at a time when his workers were feeling the pinch of inflation. He knew that the people in headquarters were skilled professionals and astute business people but he felt they sometimes lacked understanding of the strong cultural bonds that held the production divisions together and kept commitment so high-- much higher than in the U.S. People spoke of the company as though it

were one's fatherland. He also knew he would face a great deal of uncertainty as Morazan had recently undergone a transition from a military dictatorship to a democracy. The international financial community was forcing the country to adopt free market practices. The currency had floated and the peso was now officially valued at 6 to the dollar whereas months before it had been pegged at 2 to 1. The financial people at headquarters were ecstatic as the dollar costs had dropped dramatically as salaries to his 5,500 workers were all paid in local currency. However, Bernal knew the union would soon be knocking on his door, given the dramatic erosion in their buying power. The company also wanted to purchase some land from the new government. The old government had adopted a very nationalistic line and refused to sell to foreign multinationals. These issues made his job exciting and he looked forward to each day. His current problem was trying to figure out what strategy to follow in implementing total quality management.

The regional total quality management consultant, a fellow Latino, accompanied by the American organization development consultant, from headquarters, left yesterday after spending several days introducing total quality management to his senior staff. These two consultants

were advocating that he proceed with an alignment strategy in introducing total quality management. In their report, the consultants described the alignment strategy in the following terms:

"Alignment refers to getting the key stakeholders to buy in before it is diffused to the lower level employees. One must align the department heads and other key high level players, in the quality council, with the company's approach. The fundamental assumption is that the department heads and other leaders who participate in the quality council need to be convinced of the merits of total quality management before pushing it down throughout the hierarchy. Otherwise they will thwart the efforts of their subordinates. If we frustrate the initial efforts of the subordinates, total quality management will develop a bad name and fail.

Therefore, we want to spend 12 months preparing the foundation for total quality management at the senior levels before we begin a massive training effort to diffuse the total quality management message to the lower levels. The time will give the senior managers an opportunity to assimilate the new way of thinking. They need time to adjust as they are the most turf conscious of anyone within the hierarchy. What we propose is the following:

- (1) participative leadership training courses for senior managers lasting four days
- (2) facilitator training of one week for those middle managers and technicians chosen to deliver the courses
- (3) monthly seminars and workshops for the quality council, mainly made up of department heads
- (4) name a department head as the total quality management coordinator
- (5) implement several quality action teams to work on priority items identified by the quality council



Only after the above is completed should training be pushed down to lower levels. Training at the lower levels would be done by the facilitators.

We will consult to the department head you name as coordinator and will visit San Juan periodically. We will develop training materials for you. The above approach has been used successfully in Bocagrande and we recommend it for your use here."

Bernal felt that this plan sounded reasonable and until last night, he would have gone ahead with it. Yesterday afternoon he played a quick round of golf with the newly assigned materials manager, Francisco. He beat him by three strokes but then as general manager one is never sure if one wins or is allowed to win. At any rate, Francisco invited Bernal for a few beers as payment for the loss.

On the sidewalk on the way to the bar, Bernal glanced around him at the very large trees, planted close to a century ago, that provided a comfortable canopy protecting them from the sun, as their traditions had protected them from some of the previous innovations corporate had pushed their way. However, in one spot the sun shone through onto a large iguana comfortable in repose until Bernal and Francisco approached. He then scurried under the sidewalk at a point where a tree root had raised the sidewalk just high enough to provide a hiding place until the human trespassers moved on.

Bernal and Francisco entered the bar. Just then Francisco saw his wife and excused himself saying he

would be back shortly. Bernal looked around the bar and thought of how things hadn't changed. He felt more like a businessman now than the historical archetype of the tough man conquering the wilderness-- the legendary strongman of LITEP legend. Yet on the wall of the bar, a black and white photo of a former American general manager, who later became the regional vice president, continued to be displayed. It was turning yellow and curling at the edges. The photo showed a man wearing two six-shooters sitting on mule. Such memorabilia keeps the men proud, thought Bernal.

Bernal greeted a Spanish businessman who he had known from his childhood. The businessman said,

"Bernal, I just told the bartender that I bought the first car owned by a 'civilian' (i.e., non-company) in San Juan. I told him that when it was delivered on the company train, the general manager initially refused to allow it to be unloaded saying he hadn't given his authorization. He refuses to believe me. You were there- tell him it's true."

Bernal turned to the bartender and shook his head affirmatively. Bernal flashed back to the image of the general manager mentioned above. He remembered him as a portly warm man who threw great Christmas parties for the children of the employees and workers. However, he had heard that he could be tough as well.

Then a company associate, Churasco, who contracted with the company walked in. Churasco was so named

because he had been burned as a child. It was strange- by naming the stigma it ceased to be noticed and consequently, was no longer a stigma. He was carrying a large fish by the tail. He raised the fish with a forward motion of his arm and flopped it down on the bar. A crowd gathered around to admire his catch. A bystander asked, "Where did you catch it?" Churasco explained that he caught it just a few hundred yards off the coast, past the point by the mouth of the river. Several men in the group gathered around the fish, mumbled a few comments and returned to what they were doing before Churasco made his grand gesture.

Bernal turned to Churasco and asked, "What's the real story?"

Churasco smiled and admitted,

"I bought it from a fisherman after I returned empty handed again from a whole day of fishing. But, next weekend, let's watch how many boats congregate in the spot where I said I caught the fish!"

Bernal smiled and shook his head.

Churasco began to chide Bernal about his boat breaking down- again. He began,

"How could you let that happen to you? That wouldn't have happened to a gringo. I remember the old man."

Churasco pointed to the former general manager in the photo and continued with his tale,

"He had a boat called 'Solo Mio' (i.e., only mine). Nobody touched this boat except to keep it ready for his personal and exclusive use. This was how real general managers should behave."

Now a millionaire due to his subcontracting with the company, Churasco had been a timekeeper when Bernal was a child. Bernal had many fond memories of Churasco's antics. Churasco's attention now was diverted by some former colleagues who walked in. Bernal turned and watched the show Churasco put on for his former associates. He was regaling them about how he had joined a political party composed only of rich people. He was planning on being a friend of the next president and felt that this party was his ticket. The former leader of the party he had supported was now behind bars, so Churasco felt he would have to choose another party.

Churasco then launched into a diatribe against the owners of the company and the new total quality management program that he swore never to use on his production unit, the most productive in the area. He turned to Bernal and began,

"They want us to fire ten hourly workers right after they give themselves huge bonuses in a year when they lost money. And now they speak of total quality management-- to modernize. I guess it's understandable that the company wants to modernize and change. However, while there are a large number of administrators of the old school, the change should be slow and we should part with a smile and leave the worst of times for the company to the best prepared."

By "best prepared" he meant professionally educated; he had risen through the ranks. The "worst of times" refers to the then looming financial crisis; the stock price had fallen to one fifth its highest value in a two year period.

Churasco continued,

"I've seen it four times. Every time they take over they make some money for a time and then run the company into the ground. What we need is someone who is from production."

Churasco felt that the only people one could trust were those who came from the LITEP industry. Production people tended to be those socialized within the company. Such LITEP veterans believed one must be intimately familiar with the LITEP industry and its participants and behave in a manner consistent with their expectations. Churasco felt that one could not simply respond to short term financial indicators and needed to be committed to the divisions.

Churasco represented the type of employee that had built the company. In LITEP, Inc. there were professional engineers, accountants, and some college educated production specialists at various levels of the hierarchy, including the department head and general manager level. However, most of the supervisors and some department heads, Churasco's last position with the company, were not college graduates. They were not

professionals but rather had been socialized within the company. Metaphorically, one could say the production, transportation, exportation, and other employees directly involved in producing and shipping LITEP, comprised an "army of enlisted men." They were committed, loyal, and obedient members of a highly structured hierarchy and were generally not professionals. Most were people without professional training who worked hard for many years within the company and based on their skill and political ability, some made it to the upper levels of the hierarchy.

Bernal was aware of the importance of this socialization and his understanding of traditional factors such as this sometimes caused him to balk at projects introduced from the outside. But total quality management made sense to Bernal. His dilemma was how to sell it to the staff of San Juan. The socialized non-professional managers and supervisors at San Juan tended to be insular in their perspectives because their socialization was within the company and they generally did not have strong professional links outside the company. Bernal hoped this insularity could work to his advantage since those who achieve the rank of department head were usually very skillful at organizational politics. Their processing of information would give

ample consideration to what they perceived the desires of Bernal to be, given their political sensitivity and socialization.

Churasco became engrossed in a drinking game played with dice in which one tries to make combinations similar to poker hands. Bernal turned to Francisco again who had now returned to the bar after conversing with his wife. Bernal asked Francisco about his former job as the total quality management coordinator in Playa Negra, another large production division. Francisco related:

"The idea sounded great in the beginning and I was delighted that Armando, the general manager, entrusted me with the job. We had consultants come in from the outside who trained us in total quality management and participative leadership. A quality council was named and we got rolling. Armando sat back and allowed the council to muddle along for almost 18 months. Some members of the quality council did little to support me and seemed to be more concerned about their turf than anything else. However, several of them 'bought in' and were supportive. The quality manager was probably the most supportive even though he continued to be as autocratic as a manager from the early part of the century. Several area managers in production were also very supportive but they were kicked off the council one day when they didn't go to a meeting-- the council felt it had become too large.

Subordinates were trained, named to cross functional teams, and we got rolling. But they couldn't get much done aside from one project where they solved a materials distribution problem that had plagued us for years-- they showed how the use of a personal computer could process information that would help us decide where materials had to go in a timely fashion. Before that time materials would go from the plant to packing areas, accumulating in some areas and be lacking in others. Aside from this, things did not go well in the

beginning. Department heads seemed to resist giving up any autonomy. Thus Armando decided, unilaterally, as the council seemed to be incapable of deciding anything, that we would move to functional quality action teams rather than cross functional. The internal consultants and I thought this was tantamount to heresy; this was perceived by us as a regression to the old idea of quality circles. Total quality management was based on cross functional teams.

Armando said to us,

'I could jam this down the throats of my direct reports and force them to go along. They're good soldiers and they'll do as they're told. However, as soon as I get transferred, the new general manager will come in and could throw total quality management out if there is no support from the department heads. The department heads will feel no sense of ownership of total quality management if I push it too hard.'

So we went with the functional teams. Armando wanted everybody trained in the introduction to total quality management-- just like he made the whole division take effective communication seminars. It took us six months of training 4 days per week to get through the 520 salaried employees with the communication seminars. It took me just as long to train all the salaried personnel in the introduction to total quality management. We also had several very good teams working on total quality management in materials and production. Only at the very end of my stint as the total quality management coordinator did the council come around-- they named a new president, who ironically thought total quality management was a passing fad. He finally 'bought in' and they reduced the size of the council to the members who were believers."

Bernal asked Francisco, "How would you assess your contribution-- how did you do?"

In looking back on his two years of training and working with quality action teams, Francisco related that progress had been made, although serving in a staff



coordinator role had been frustrating, given the strong line orientation of Playa Negra. In the end, after the initial frustration of the cross functional quality action teams, he expressed satisfaction with the production quality action teams and described them in the following manner:

"A key operations manager was assigned a quality problem. He was then empowered to choose the members of his or her team. These people met and analyzed the specific problem. Significant improvements in quality outcomes resulted. The feedback from the market has been very positive."

Francisco again left Bernal momentarily as his wife returned to the bar to remind him of when he was supposed to be ready to host their dinner guests, a couple that they had met in Playa Negra but who had been transferred to San Juan just over 6 months ago. With Francisco momentarily gone, Bernal was again left with his thoughts. Francisco's attribution of the positive outcomes to total quality management alone was difficult as Bernal knew, from attending regional meetings, that concurrently with the total quality management implementation, a very significant change in shipping had also occurred. Nevertheless, he understood that the participants in Playa Negra felt positive about the process and that desirable outcomes had been achieved, regardless of the causation. Bernal knew that the general manager of Playa Negra, Armando, was sold on

total quality management. In the Fall of 1993, after several years experience with total quality management, Armando enthusiastically endorsed it at a regional meeting. Bernal knew that Armando was political and astute. He wouldn't stand up in front of his superiors and support a "lemon."

Francisco returned and launched right into a monologue as though he had never left,

"In retrospect, I called this the 'deployment strategy'-- we deployed total quality management to the lower levels of the organization. At some point, the department heads became aware that costs were dropping and some problems had been solved. We began the transition from management by results to participative management where teams, led by supervisors, worked together to solve problems."

Bernal listened intently. This was very much at odds with what the internal consultants were recommending. They both had told him that Francisco had done a good job but had been reluctant to receive their support. Bernal asked about this, "Did our internal consultants help you out?"

Francisco replied,

"They know their stuff and would come from time to time but they seemed wedded to a cookbook formula for total quality management and I wanted to do it my way. Later I got on well with them. We worked on a number of things together as well. I have total confidence in them. I'm sure they'll be very helpful to us here as well. Personally, though, I'm glad to be in a line position again. Staff jobs-- like my previous coordinator job-- are terrible in production divisions. All the power is with the

line managers. I guess I'd appreciate focusing on inventories rather than total quality management."

Bernal then said goodnight and returned to his home in time to get enough sleep to be alert at the meeting the next day.

As the steam whistle went off the next morning, Bernal was reminded of his childhood. It was time to get up. He found it amusing that the company still woke people up but he found it absolutely hysterical that the whistle went off two more times; the next blast was to remind people that it was time to head for work and the last indicated it was time to be at work. Such throwbacks to the paternalistic neo-colonialist era of the American managers were reminders that the company had been a total institution and it was still exerting a strong impact on the employees. He was surprised to hear that they still made caskets for anyone who died. This he would have to cut out as it was embarrassingly paternalistic. But he thought it quaint that the company still had a key to a gate on one of the international crossings so that the LITEP trains could pass at night. What were not so quaint were the 1,200 illegal hook-ups to the company's electrical power distribution grid-- and five of these had been traced to Churasco's freezers! He realized the company would have to continue generating electrical power for the community in addition to its

operations and he'd have to talk to Churasco and the others-- they'd have to be educated. The company could no longer afford to present itself as a benevolent but domineering grandmother. He knew it would take a few years to make the transition to near full payment for electrical energy.

Bernal left home and went to the airport to await the seven seater company plane. He was flying out that day to the capital where the three general managers would make their budget presentations to the regional vice president. While flying out he gazed over the production facility. The old wooden houses surrounded by large trees had not changed since his childhood. He noted the steel bridges spanning the rivers that had been built at the turn of the century by the company. Everything had been built by the company and now it was difficult to get the government to assume responsibility for the community's infrastructure.

Bernal landed at the airport and was whisked off to the budget meeting. After 12 hours of being grilled by the finance director and the operations vice president, the three general managers were pleased to retire to the hotel bar. Morazan produced one of those great tropical beers that was light but satisfying on a hot day. Bernal always enjoyed seeing his colleagues, Armando, the

general manager of Playa Negra, and Karl, the general manager of Bocagrande. He had worked with them for years and had spent many hours laughing at their stories in hotel bars just like this one. They were all well into their forties now and felt foolish hanging out at discos at night. Thus, talking about total quality management seemed like the appropriate alternative for middle aged, either slightly balding or portly executives.

Bernal had once worked for Armando and knew him well. Armando was from Playa Negra. His father had been associated with the company as a professional service provider but had died in a plane crash when Armando was a boy. He was educated in the U.S. and had completed a degree in the sciences. He began working for the company in a research capacity but moved to production where he had spent his entire career of more than 25 years. Bernal admired him for his highly developed political skills and charismatic leadership qualities. Bernal thought to himself-- he may be balding and need glasses (that he refused to admit) but he was still huge and very fit. Armando struck an imposing image as he spoke with a thundering voice and walked about with arms waving while addressing those in today's meeting. He combined an engaging manner with total authority. Bernal knew one could speak frankly with him and challenge him with well

founded arguments yet one remained totally cognizant of his authority.

Like most general managers Armando's talents were in production, including labor relations, and general leadership. He more or less left the support functions (e.g., the controller's office and materials) alone as long as policy was followed, budgets respected, and targets met. He handled the human resource functions for key people himself in terms of career development and succession planning and tended to plan and then offer options to subordinates, rather than conversing with them to determine how they saw their careers developing.

Armando's former controller once told Bernal, "He does half the work of a controller in that he makes people follow the rules and is very cost conscious."

Bernal recalled how he once overheard the American human resources manager suggest to Armando that he alleviate his housing shortage by moving a clerk, the wife of a transferred professional, who was still living in a large house, previously suitable for her family but too large for one person, to an apartment. Bernal remembered Armando's response, "You don't understand anything. She couldn't show her face and I have to get along with her." Later Bernal tried to explain to the American HR manager how sensitive such matters were to

the tight, village-like cultures created in the company towns.

Karl, the general manager of Bocagrande, held similar convictions about the importance of the strong culture within LITEP divisions. For example, an assistant controller candidate proposed by the HR manager was rejected by Karl because the candidate's wife would not join him. This concern for the individual's family situation struck the HR manager as unusual. Bernal explained to the HR manager that what Karl seemed to have been trying to emphasize was the requisite commitment to the LITEP culture and lifestyle. Involvement of family was part of the commitment; it was not just a job-- it was a lifestyle.

Bernal had also worked with Karl. In fact, they trained together. Karl carried a European Community passport, held a green card from the U.S., was born in the Caribbean, grew up in Central America, and was educated in Europe as a military officer and served several years in a war zone. His father had worked for the company and he arranged for Karl to be employed by LITEP, Inc. Karl worked his way up through the ranks of production within LITEP, Inc. and after 15 years or so with the company became a general manager.

Bernal enjoyed listening to Karl's tales of crises. Karl said the only remaining disaster that had not touched Bocagrande during his tenure would be a volcanic eruption. During a crisis Karl led the charge and worked day and night to get production back on track. He also tended to be greatly involved in production and insisted that his assistant have "mud on her shoes," an indication that she had been out of her office and in the production areas. Bernal recalled that Karl was described fondly by his subordinates with the English word "pusher," meaning one who gets things done.

Karl was very much involved in the social life of the division. His avid support of a soccer tournament left him with a severed Achilles tendon. This slowed him down for a time but he managed to hobble around the production areas on his crutches. Like so many others, Karl spent most of his free time discussing matters with company associates.

Karl got himself into trouble from time to time with headquarters as he was more assertive than political. He was very concerned with the quality of life for workers. However, given the economic crisis facing the Central American LITEP industry as a whole, due to trade barriers in Europe, Karl understood the need to continue reducing costs. Karl enjoyed reminiscing about the cowboy days of



the past-- the days when the general manager had the power to shoot from the hip and do what had to be done. His former boss had expanded production by close to 20% without corporate approval. He had said he wanted "to round out the edges." The regional vice president at the time had written him, "If you spend one more dollar without approval, you're fired." Karl's former boss was later summoned to the headquarters and expected to be fired but was instead promoted. Karl had worked for him for years and respectfully and fondly told stories about the "cowboy" exploits. But they all knew the "cowboy" days were over; the operations vice president went over everything. His intellect and business acumen were coupled with a level of type A aggressiveness that made him a formidable interrogator during regional reviews.

Bernal began the conversation with a question,

"Now that you both have gone through this total quality management process, what advice would you have for me as I'm just beginning?"

Karl spoke of how difficult it was to be neutral within the quality council, "Even if I ask a question, the others are trying to guess what's on my mind." He continued by saying that he felt they had made a mistake by not working more with the department heads from the start,

"We had a quality council that included several people from lower levels of the organization. Some

of them objected to some of the ideas I proposed so I loaded the council with people from my office or who I could count on. The quality council became a manager's council."

Bernal knew of Karl's approach with the council. A former colleague who was still in Bocagrande had told him that the council had a majority of people who were either interested in doing what Karl wanted because they were from his office and dependent on him or a few others who were perceived as engaging in ingratiating behaviors (i.e., the Spanish term literally translates as "sock sucker") in their relationship to the general manager. It was no longer independent, in his view.

Karl had openly stated that he didn't like it when the council objected to the projects he proposed. To keep the quality process moving in the direction he wanted, he chose to force the above change. To Karl, the total quality management process was not a philosophy but rather a cafeteria of interventions from which he could select the appetizing portions (e.g., project teams, involvement of lower level employees, etc.) and pass over the less appealing items (e.g., an autonomous council).

Armando listened and countered,

"One has little to fear from participation. If you know the business, you can help people problem solve in a manner that enables them to develop. By giving people authority they will come to you and seek your input. This gives me more power than I would have if I simply told a passive work force what to do. I want a proactive group seeking answers. But then I

never submit something to a participative forum when I already know the answer."

Armando continued, "I guess what I like most is getting a large organization to do what I want it to do." He saw total quality management as an opportunity to try something new. "You learn from your bosses but you want to do more. TQM gave me that opportunity."

Bernal thought to himself as Armando and Karl chatted with a visitor from corporate who also attended the meeting earlier that day. Bernal understood that at the conceptual level, leadership was the driving force behind the company's quality system but he didn't know whether to push for alignment, like Karl had done, to get the quality council to fall in line with how Karl perceived total quality management methodology or saturate the lower levels like Armando had done in Playa Negra while waiting for the department heads in the quality council to gradually change and adopt the total quality management approach.

Bernal knew that he had to be careful in pushing to overcome resistance to change, with an innovation like total quality management. He realized that the seeming inflexibility of inertia was the negative view but he saw this inertia as the continuity of a strong culture. The strength of such cultures allowed the organization to keep on doing what it had been doing. His dilemma was to

strike the appropriate balance that permitted innovation while preserving enough continuity to maintain an organizational foundation that members found motivating and meaningful. The intervention was not an isolated event, but was shaped by the context.

Armando and Karl returned to the table with Bernal and continued their discussion of total quality management. Armando continued,

"I adopted a low key supportive approach to total quality management rather than pushing it, in contrast to my standard aggressive approach to project implementation. The risk of dictating policy for the quality council was that the total quality management effort could dissipate should my successor not support the process. I sat and watched the council accomplish little for nearly two years. The council members eventually became frustrated with their lack of accomplishment. They changed the leadership and reduced the membership. However, when they appeared to end yet another inconclusive meeting in late July 1993, I finally intervened and ordered them to continue their meeting until they developed some direction. I didn't give them a specific direction but ordered them to develop one."

As Armando and Karl excused themselves, Bernal was left with his question: should I pursue the alignment strategy and get the council on board first or the deployment strategy where I would work simultaneously at various levels-- the council, massive training, and quality action teams?

## CHAPTER 5

### POLICY DEPLOYMENT VERSUS MANAGERIAL OPPORTUNISM

We will begin this chapter by focusing on the strategy used by the general manager. The proposition to be examined is the following:

In a strong organizational culture, the leader's simultaneous focus on multiple levels of the organization through total quality management policy deployment will be more effective than first aligning the quality council with the leader's perception of total quality management.

Total quality management policy deployment refers to consistent, explicit and concrete quality policies diffused to all levels of the organization. It is based on the leader's perception of the contingencies affecting the implementation of total quality management. In organizational change efforts, such as those entailed in implementing total quality management, clarity in understanding and direction are particularly crucial. This is especially true where the setting has organizational and cultural features (e.g., "turfism", high power distance and tall, mechanistic hierarchies) that run counter to those generally associated with total quality management. Without such clarity, not only the general work force but also the leader may lapse into

behaviors acceptable to the culture, such as opportunism in coopting a quality council, but that undermine the aims of total quality management.

The proposition was tested by contrasting the participants of the total quality management program with the non-participants in both Playa Negra and Bocagrande. The total quality management participants were significantly differentiated from the non-participants, of Playa Negra but not of Bocagrande, in terms of the following variables:

Inclusion: This variable measures perceptions relating to the extent to which one (1) interacts with other levels and departments of the organization, (2) is privy to financial and objectives related information, (3) understands how decisions are made, and (4) feels like a partner who is heard. This variable is included because access to information is seen as a critical aspect of involvement (Lawler, Mohrman, & Ledford, 1992).

Upward influence: This scale measures perceptions of (1) how well the supervisor listens to one's opinions and solicits advice, and (2) whether or not the subordinate is consulted on job changes. These behaviors are critical to the communication process within employee involvement programs.

Activity feedback: This variable measures one's perceptions of feedback from others regarding the quality of one's work as well as the ability to give feedback to others. Feedback is included because it is an essential component of the dialogue upon which continuous improvement is based within total quality management.

Positive attitude toward total quality management: This variable consists of questions that measure the degree to which the respondents hold positive attitudes toward total quality management.

There were no significant differences between the total quality management participants and non-participants at either setting in regards to the following variables:

Support for innovation: This scale measures perceptions relating to (1) good ideas being put into practice, (2) being encouraged to try new ways of doing things, and (3) being rewarded for coming up with new ideas. This attitude is, by definition, part of the continuous improvement process.

Facilitative leadership: This scale focuses on (1) receiving clear feedback, messages, and guidance from one's superior plus (2) the autonomy to figure out how best to work. Supervisors need to demonstrate these skills if involvement is to be successful.

Cooperation: This relates to assistance from co-workers and is basic to collaborative problem solving.

One reason the findings for the above listed variables were insignificant may be because the total quality management program had been in operation for less than two years. After several more years, it is conceivable that the total quality management participants would be differentiated from the non-participants in terms of these variables as well.

Since the samples were small, with non-normal distributions, non-parametric tests were used. The means were ranked for each of the above variables using the Kruskal-Wallis test. The median test was also employed; it ranked cases above and below the median. The results are reported where significant. In the case of Playa Negra, the total quality management participants were significantly differentiated from the non-participants as shown below:



Table 5.1  
Significant differences between TQM population and non-TQM sample  
Kruskal-Wallis & median nonparametric tests- Playa Negra

**Inclusion- Kruskal-Wallis test:**

Mean Rank	Cases				
52.78	46	IN TQM = YES			
39.07	45	IN TQM = NO		Corrected for Ties	
Cases	Chi-Square	Significance	Chi-Square	Significance	
91	6.1338	.0133	6.1764	.0129	

**Upward influence- Kruskal-Wallis test:**

Mean Rank	Cases				
55.49	47	IN TQM = YES			
37.11	45	IN TQM = NO		Corrected for Ties	
CASES	Chi-Square	Significance	Chi-Square	Significance	
92	10.8903	.0010	11.0127	.0009	

**Upward influence-Median test**

In TQM	yes	no		
> Median	22	11		
< Median	25	34		
Cases	Median	Chi-Square	Significance	
92	3.333	4.0735	.0436	

**Activity feedback- Kruskal-Wallis test:**

Mean Rank	Cases				
51.81	47	IN TQM = YES			
39.80	44	IN TQM = NO		Corrected for Ties	
CASES	Chi-Square	Significance	Chi-Square	Significance	
91	4.7008	.0301	4.7407	.0295	

**Activity feedback-Median test:**

In TQM:	Yes	No		
>Median	28	15		
<Median	19	29		
Cases	Median	Chi-Square	Significance	
91	3.33	4.9428	.0262	

**Attitude toward TQM- Kruskal-Wallis test:**

Mean Rank	Cases				
54.31	47	IN TQM = YES			
38.34	45	IN TQM = NO		Corrected for Ties	
CASES	Chi-Square	Significance	Chi-Square	Significance	
92	8.2171	.0041	8.3282	.0039	

**Attitude toward TQM- median test:**

In TQM	Yes	No		
>Median	26	11		
<Median	21	34		
Cases	Median	Chi-Square	Significance	
92	3.667	7.8757	.0050	

The results for Bocagrande did not convincingly differentiate the total quality management participants from the non-participants as shown below in table 5.2:

Table 5.2  
Significant differences between TQM and non-TQM respondents

Kruskal-Wallis & median nonparametric tests- Bocagrande

Inclusion:					
Mean Rank	Cases				
39.79	34	IN TQM = YES			
30.34	35	IN TQM = NO		Corrected for Ties	
CASES	Chi-Square	Significance		Chi-Square	Significance
	69	3.8275	.0504	3.8457	.0499
Organizational commitment:					
Mean Rank	Cases				
28.98	33	IN TQM = YES			
39.70	35	IN TQM = NO		Corrected for Ties	
CASES	Chi-Square	Significance		Chi-Square	Significance
	68	4.9876	.0255	4.9986	.0254

In the case of Bocagrande, none of the Kruskal-Wallis tests were supported by significant results from the median tests. As nonparametric tests are fairly weak, the significant findings for the Kruskal-Wallis tests reported above should be viewed with caution, from a statistical standpoint. Furthermore, there are alternative explanations for the significant findings reported above, that are, in our opinion, unrelated to total quality management. Inclusion is higher because 13 of the 15 respondents at the bonus eligible level were in total quality management. These people participate in managerial decision making because of their position, not their total quality management involvement.

Organizational commitment could have been higher for non-

total quality management respondents because the previously mentioned executives are better educated and have more alternatives outside of the organization. Thus their dependency on the company may be weaker than those with little education who are more limited in employment alternatives. Those with little education would have difficulty finding jobs that paid more than the ones they held within the company. Therefore, I cannot conclude that total quality management has as yet had an impact, as measured by the survey results reported in table 5.2.

Both Playa Negra and Bocagrande are characterized by strong organizational cultures. Armando, the leader in Playa Negra, simultaneously focused on multiple levels of the organization through total quality management policy deployment. The preceding statistical results from table 5.1 support the proposition that Armando's policy deployment had an impact. In contrast, table 5.2 indicates that Karl's managerial opportunism (i.e., first aligning the quality council with the leader's perception of total quality management) did not have a comparably significant impact.

The survey results give us a glimpse of the outcome. However, to better understand why the differing leadership styles fostered different results we will start with some background material on each of the two

leaders. This is important in order to show how their contrasting implementation strategies were part and parcel of two feasible styles of leadership in the national and organizational cultures they shared. Then, to appreciate the dominant and important role the organization created for the general manager, we will connect their general styles to the specific strategies they used in more detail through a discussion of leadership and the power of the general manager. Therefore, how each of the two leaders, Armando and Karl, approached any new program really mattered.

The general manager's role is a powerful one within the established LITEP production divisions of Playa Negra and Bocagrande. The power given to this role is due to a number of reasons including the following: (1) culture, both national and organizational, and (2) the competence of the people within LITEP, Inc. who typically fill this role.

From a cultural standpoint, high power distance (Hofstede, 1980) is generally accepted within Central American society. Coupled with the high power distance is the allocentrism (Triandis et al., 1988), a strong in-group feeling that provides a profound sense of identity in Latin collectivist cultures, which is especially pronounced in company towns such as Playa Negra and

Bocagrande. Thus, one could say the general manager enjoys authority as the designated leader within a cultural context where such a role is held in esteem by the cohesive local society.

Loyalty, commitment, and obedience characterize the organizational cultures making them almost military-like. People do as they are told. They hesitate to contradict their superiors. They express high levels of commitment to the company. Turnover is practically non-existent; people spend their lives working for LITEP, Inc. Part of the discipline stems from the previously mentioned high power distance but it also relates to the neo-colonialist subjugation of Central Americans by the North Americans and Europeans who previously occupied all managerial and supervisory posts. The general managers were the elite of this elitist subculture who enjoyed special housing, privileges, higher salaries, and better benefits than the Central Americans. I observed that many Latin subordinates within the company still defer to expatriates.

The general managers enjoy great power and respect because the large multinational that employs them has decided that they have passed all the tests laid before them in their careers and deserve their designation as general manager. They have mastered various jobs and

tasks over the 15 years or more that it usually takes to become a general manager. When they attain the level of general manager, they are generally recognized as competent production and operations specialists who also have soundly developed managerial and political skills.

LITEP's environment is turbulent in the sense that its markets are highly volatile. This in turn is due to trade barriers, and the changing perception of assorted strategic issues (e.g., labor laws, property rights, and LITEP contractors) in Morazan. This turbulence is of great import to the strategic direction of LITEP, Inc. but is not relevant to this case except that the uncertainty it causes requires non-routine decisions to be made by executives within LITEP, Inc. thereby preserving a great deal of power for the general manager and those above him.

Now that it is clear why the role carries such great authority, what are the two people like who occupy it? Biographical sketches are presented to bring the role to life. Armando of Playa Negra is significant because he was the first Latin American to be designated as a general manager by LITEP, Inc. Karl is of interest because he typifies the established pattern of competent expatriate leadership, as well as the nepotism that helps bind the LITEP, Inc. culture together.

Biographical sketch- Armando

Armando, the general manager of Playa Negra, is a native to that community. His father was associated with the company as a professional service provider. Armando was educated in the U.S. and completed a degree in the sciences. He began working for the company in a research capacity but moved to production where he spent his entire career of more than 25 years. Armando is a talented and enthusiastic athlete who regularly wins golf and tennis tournaments organized by the company. He also organized a scuba diving club in one operation.

He has highly developed political skills and charismatic leadership qualities. He is a large fit man who strikes an imposing image. During meetings, he frequently stands and walks around the room speaking with a thundering voice and waving his arms to emphasize a point. He combines an engaging manner with total authority; one can speak frankly with him and challenge him with well founded arguments yet one is always aware of his authority. His talents are in production, including labor relations, and general leadership. He permits the support functions (e.g., the controller's office and materials) considerable autonomy as long as policy is followed, budgets respected, and targets met. He handles the human resource functions for key people

himself in terms of career development and succession planning and tends to plan and then offer options to subordinates, rather than converse with them to determine how they see their careers developing.

Armando derives his power from the support the organizational culture gives to the role of the general manager, the national culture's perception of power distance, and his ability to create and deploy policy. His former controller in Playa Negra, who became his controller again in his new assignment in another country, stated, "Armando does half the work of a controller in that he makes people follow the rules and is very cost conscious." Others who work with Armando also describe him as predictable. The methodical and deliberate approach he has adopted to total quality management policy deployment is consistent with the approach he has taken in implementing other programs in the past.

I once asked Armando what gave him satisfaction. He responded, "I enjoy getting a large organization to do what I want it to do." He saw total quality management as an opportunity to try something new. "You learn from your bosses but you want to do more. Total quality management gave me that opportunity," he said.



Armando said that he had nothing to fear from enhanced participation or involvement and that, "If you know the business, you can help people problem solve in a manner that enables them to develop. By giving people authority they will come to you and seek your input." This gave the general manager more power than he would have had if he simply had told a passive work force what to do. He said he wanted a proactive group seeking answers. He also said that he never submitted anything to a participative forum when he already knew the answer. He said, "You don't have to tell people you're in charge-- they know it."

Biographical sketch- Karl

Karl, the general manager of Bocagrande, was born in the Caribbean, spent his early years in another Central American LITEP production division where his father worked. He later attended boarding school in Europe where he was educated as a military officer. He spent several years in a war zone, left the military, and eventually went to work for LITEP, Inc. It had been and still was, at the time the research was conducted, very common for executives to arrange for one or more of their children to be employed by LITEP, Inc.; Karl has a brother who also works for LITEP, Inc. in Europe. Nepotism is one of the bonds that holds the LITEP culture

together. Karl worked in many different locations including Playa Negra before his promotion to the general manager's slot in Bocagrande. Karl is very effective during crises. He said the only remaining disaster that had not touched Bocagrande during his tenure was a volcanic eruption. Karl is described by his subordinates with the English word "pusher," meaning one who gets things done through an insistence on task completion.

Karl is very much involved in the social life of the division. His avid support of a soccer tournament left him with a severed Achilles tendon. This slowed him down for a time but he still managed to hobble around the production areas on his crutches. Like so many others, Karl spends most of his free time discussing matters with company associates, often in the employee's club, a community facility with golf and tennis courts plus a bowling alley that included a snack area and bar.

Karl gets himself into trouble from time to time with headquarters since he is more assertive than political. He is very concerned with the quality of life for workers. However, given the economic crisis facing the Central American LITEP industry, due to trade barriers in Europe, Karl understands the need to continue reducing costs.

Given his style of pushing to get results, Karl was eager to implement the different projects he envisioned--so eager that he unabashedly manipulated the quality council into what he called "a manager's council." He expressed discontent that some of the people on the council disagreed with him so he "rotated" them off the council and replaced them with several of his direct reports whom he could count on for support. Given the organizational culture's willingness to accept a high level of direct control from the general manager, Karl's actions are by no means unusual. However, his subordinates complain, from time to time, about his inconsistency from one day to the other but accept it as they believe that such is the prerogative of the general manager.

#### Leadership

What I observed during the participant observation phase of the research process was a leadership role, on the part of both men, characterized by both direct and unobtrusive control. Both the organizational culture, with its traditional respect for authority, and the national culture, with its emphasis on power distance, contribute to this.

I do not believe that Armando, the general manager of Playa Negra, embraced participation as an ethical

imperative; he simply understood that total quality management prescribed a certain level of involvement and autonomy by the council. Part of his understanding of the process was that he should not intervene in the quality council's activities. Karl, the general manager of Bocagrande, on the other hand, felt more comfortable continuing as a "pusher"; he wanted to get the council moving on the track he envisioned for total quality management. Both general managers were pressured a great deal by their superiors to accomplish difficult targets. Thus, I do not mean to imply that Karl's adoption of the opportunistic route was in any way unusual or unethical; I hope to demonstrate that it was practically the only choice if one did not have a clear policy. Armando, on the other hand, used his understanding of the need for an autonomous council to restrain himself in quality council meetings. That is, his actions were guided by the policy he had deployed, that included autonomy for the council.

The dilemma for the general manager is striking the appropriate balance that permits the involvement practices of total quality management to flourish while preserving enough continuity to maintain an organizational foundation that members find consistent with their culturally determined expectations of hierarchy. The strong organizational culture has a value

based rationality that cannot be ignored by a leader when introducing a rational innovation such as total quality management.

For example, the traditional importance given to hierarchy and "turf" made it difficult to introduce cross functional teams in Playa Negra; the organization was embedded in an allocentrism-- an emphasis on in-groups-- with assumptions that differed from those of the doctrine of total quality management that emphasizes cross functional teams. The cultural norms of the organization in Playa Negra were incompatible with cross functional teams.

Therefore, in the case of Playa Negra, the general manager gave his direct reports time to assimilate the total quality management methodology and did not push cross functional teams too aggressively; he allowed them to switch to functional teams when it appeared they were too "turf" conscious to tackle the interdependencies of cross functional teams.

There was a certain irony in the general managers' concurrent demonstration of very strong control of the hierarchy coupled with their expression of receptivity to total quality management. On the surface the participation required by total quality management seemed inconsistent with one's perception of the general

managers as strong leaders. However, the general managers' traditional leadership role in the organizational culture was ubiquitous, no matter what management approach was taken. In a sense, it was heightened with total quality management since it drew on the willing participation of people deeply loyal to the general manager and what he represented in the culture. Thus, the general managers had little to fear from total quality management because they maintained control. On the contrary, the innovations of total quality management that reduced costs and improved quality would enhance the results of the organization. The hierarchies the general managers led in both Bocagrande and Playa Negra remained the same; total quality management was established as a parallel structure to foster innovation and continuous improvement.

How then does strong managerial control manifest itself in a high power distance setting?

The general manager's direct control

First, some anecdotes and observations are presented to quickly convey a sense of the power of the general manager. The first form is direct control-- i.e., explicit orders and instructions. Historically, the archetype of tough men conquering the wilderness was consistent with what was needed of general managers. For

example, in one bar in another LITEP producing country, I saw a former American general manager (who later became the regional vice president) wearing two six-shooters, in a photo prominently displayed as part of the bar's memorabilia.

The role of the general manager had traditionally enjoyed a high degree of authority and power extending beyond the company boundaries. One Spanish businessman said that many years ago he bought the first car owned by a "civilian" (i.e., non-company) in Bocagrande. When it was delivered on the company train, the general manager initially refused to allow it to be unloaded saying he hadn't given his authorization.

Another anecdote was illuminating regarding the traditional power of the general manager. In the bar, in Bocagrande, I observed several veteran company associates practically scolding Karl for suffering mechanical problems with his boat. They felt that he should have been more demanding of the company mechanics who should have maintained the boat in good working order for his occasional use. They told of a former general manager who had a boat called "Solo Mio" ("only mine") and that nobody touched this boat except to keep it ready for his personal and exclusive use. This was how they felt a general manager should behave. Thus, the general manager

had been and continued to be seen as a very powerful figure within the company towns where LITEP was produced.

The general manager's unobtrusive control

Another important source of power was unobtrusive control. The implicit or unobtrusive controls discussed below are: socialization, cultural norms, management of uncertainty, informal groups, hierarchy and interdependencies, and commitment.

Socialization. Specialization exists within LITEP, Inc.-- i.e., there are professional engineers, accountants, and some college educated production specialists at various levels of the hierarchy, including the department head and the general manager level. However, most of the supervisors do not have the academic background typically associated with specialization. Instead they both learned their jobs and were socialized within the company. Thus, a more prevalent form of bureaucratic control within LITEP, Inc. is socialization rather than specialization.

Metaphorically, one could say the production, transportation, exportation employees, and others directly involved in producing and shipping LITEP, comprised an "army of enlisted men." They were committed, loyal, and obedient members of a highly structured hierarchy and were generally not



professionals. Most were people without professional training who had worked hard for many years within the company and, based on their skill and political ability, some made it to the upper levels of the hierarchy.

One particularly colorful individual in Bocagrande, now a millionaire due to his subcontracting with the company, spoke for the loyal socialized supervisors-- i.e., "empiricos," a somewhat derogatory Spanish term for people who learned on the job without the benefit of professional or higher education. He said, "It's understandable that the company wants to modernize. However, while there are a large number of administrators of the old school, the change should be slow and we should leave one another with a smile and leave the worst of times for the company to the best prepared." By "old school" he meant the socialized supervisors-- the "empiricos." "Best prepared" referred to professionally educated and the "worst of times" to the then looming financial crisis-- i.e., the stock price fell to one fifth its highest value in a two year period.

The production people tended to be those socialized within the company. Such LITEP veterans believed one must be intimately familiar with the LITEP industry and its participants and behave in a manner consistent with their expectations. One could not simply respond to

short term financial indicators. A veteran general manager, who worked elsewhere, stated, "I've seen it four times. Every time the finance types take over they make some money for a time and then run the company into the ground. What we need is someone who is from production."

The general managers were aware of the importance of this socialization and their understanding of traditional factors such as this sometimes caused them to balk at projects introduced from the outside. A recent proposal by the finance manager to consolidate some accounting and materials tasks in the capital city could have resulted in potential savings but at the price of decreased managerial autonomy for the general managers, which was why it was temporarily shelved (later to be revived when cost pressures became too great).

The socialized non-professional managers and supervisors were generally insular in their perspective because their socialization was within the company and they generally did not have strong professional links outside the company. Those who achieved the rank of department head were usually very skillful at organizational politics as well. They gave ample consideration to what they perceived the desires of the general manager to be. According to Karl, "Even if I ask a question, the others are trying to guess what's on

my mind." Also, by encouraging loyal subordinates to be proactive through increased participation, the general manager increased his power in that the participants would come to him for guidance about how to carry out the innovation under consideration.

Closely related to socialization were the cultural norms.

Cultural norms. The general manager needed to be very sensitive to how things would affect people. One could say he interpreted the culture. For example, an assistant controller candidate was rejected by Karl because his wife would not join him. This concern for the individual's family situation seemed unusual at first but what Karl emphasized was the requisite commitment to the LITEP culture and lifestyle. The involvement of the family was part of the commitment; it was not just a job-- it was a lifestyle.

Armando had a problem with a housing shortage and a company clerk, the wife of a transferred professional, was still living in a house, that had become too large for her needs. The expatriate human resources manager suggested that she be moved to an apartment. Armando responded, "You don't understand anything. She couldn't show her face and I have to get along with her."

In another instance, a department head of Bocagrande was to have been transferred to Playa Negra and groomed for a general manager's slot. However, his mother-in-law rejected the house they had been assigned as a step down in status for him. As a result, the transfer did not occur. Armando could not assign him another house because there were none available. To reject such an opportunity because of the symbolic importance attributed to a house was perceived by Armando and the regional vice president as an indication that the individual did not want the transfer.

The preceding were examples of how the general managers interpreted the culture and took action to preserve it for a variety of reasons including their position within the culture.

Management of uncertainty. Another source of traditional power within LITEP, Inc. is capricious behavior. General managers sometimes used to do what they felt needed to be done prior to completing the systematic analysis required by the formal budgetary approval process. This previous "shoot from the hip" approach was referred to as the "cowboy" style and was strongly discouraged in the fiscal area. Roughly 6-7 years ago, one general manager reportedly expanded production significantly without corporate approval. His

superior wrote to him, "If you spend one more dollar without approval, you're fired." The general manager was later called to the corporate headquarters and expected to be fired; instead he was given a promotion and transferred to a new project.

Karl worked for the above mentioned general manager for years and respectfully and fondly tells stories about the "cowboy" exploits. Thus, it came as no surprise, that upon being reminded that he needed the vice president's approval to fill a position, Karl responded angrily, "If I need his approval for each low level position, let him run the place!" The "cowboy" spirit was hard to snuff out by rational demands made from a distance. Karl said that his father told him that in the days of poor telephone service it was reportedly easy to claim that one did not receive instructions and continue with a locally determined capricious solution. The general managers derived a great deal of power from this capriciousness.

During the late 1980s, the "cowboy" style of managing uncertainty had been rationalized due to excellent communication systems, frequent face to face contact between the corporate headquarters and the general managers, and the strong determination of the operations vice president, who meticulously reviewed all

budgets, capital appropriation requests, and strategic projects.

However, uncertainty remained since not everything could be routinized. If everything were routine, power would disappear. Thus, the general managers maintained enough autonomy to respond to unforeseen changes. Such uncertainty caused subordinates to look to them for guidance. Managers achieved power through programs and routines for subordinates and through making exceptions to those programs and routines (Crozier, 1964). The art lay in finding the correct balance since a proliferation of rules in the hierarchy would eventually limit the general managers' power, while too many exceptions would have reduced their ability to check the power of others through rules. Armando had found this balance by sticking to policy, establishing several strategic objectives, and monitoring them closely while maintaining personal power to deal with unforeseen events. Karl was more prone to change his mind and appeared to have an ad hoc style, but some of this may have been due to the repeated crises he faced and the turmoil they created. Nevertheless, he was decidedly more unpredictable than Armando.

A symbol of the personal power of the general managers was found in the scheduling of the company

planes. Priority company passengers were guaranteed space but the general managers' power became evident in how the other available seats were allocated. Friends and relatives of significant personal and business associates were given preferential treatment by the general manager. An itinerary was prepared in advance and then changed several times until 5:00 p.m. the day before the planes were to depart. The general manager personally approved the itineraries. Because the planes became a focal point of personal power for the executives, a former vice president reportedly said it was easier to run a large LITEP operation than schedule two planes. For example, the wife of an executive wanted to travel from the capital of Morazan to the capital of a neighboring country regularly serviced by commercial airlines. This seemed unreasonable but after consultation, via an international phone call with a vice president at the corporate headquarters, the routing was approved, even though it cost around \$800/hour (i.e., annual budget/flying time) compared to \$125, the price of a commercial ticket.

Informal groups. Within any organization, there are individuals or a group who are powerful because of their ability to influence others beyond their formal roles (Homans, 1951). Managers can use such groups to monitor,

influence, and facilitate desired activities. The general manager was the leader of the in-group. As the leader or prime participant in such informal groups, the general manager maintained a high degree of influence over the participants who looked to him for guidance and counsel.

According to an employee opinion survey done in Playa Negra in December 1991, the group that felt most positively about working conditions was composed of male supervisors over the age of 36. The general manager spent most of his work time with this group.

The general manager had usually worked for the company for 15 or more years and was strongly acculturated within the company. He had lived within LITEP organizational culture all this time, as well as childhood for some, developing an understanding of the lifestyle through socializing and working with company employees who were at the same time neighbors.

The general manager became the standard bearer for that lifestyle. His office was expected to organize a number of social events for holidays, golf or tennis tournaments (in which he participated), and going away parties for people who were transferred.

Hierarchy. Power was most evident within hierarchical interaction with subordinates-- for example,



in relation to human resources decisions. In one instance an individual was sought out by both Bocagrande and Playa Negra. He had been told by the human resources manager that he could visit both to see where he found the best fit. Armando initially objected to such a preliminary visit. He saw it as inconsistent with the way they normally did things. Ultimately the regional vice president had to decide where the individual was assigned.

The need to dominate subordinates was commonly expressed by superiors. In another instance a subordinate threatened to quit if he did not receive a raise in his salary to increase it to a level comparable to that of others. His manager swore the human resources manager to secrecy and said, "Julian is very good." The inference was that subordinates should not be told by their superiors how valuable they were because such knowledge would give them power.

For one department head, hierarchy was more than simple power associated with a senior position. It had a raw element to it wherein his authority could not be questioned. He expressed the explicit desire that his subordinates fear him. His preference for primitive domination was extreme but such a desire for control over subordinates was not unusual in traditional LITEP

culture. He actually asked the human resources manager to do a survey feedback of his department to find out if his subordinates held a sufficient degree of fear for him.

Some of the more interesting stories came out as people stood around the bar in the evenings discussing how the Americans had been very strict in the past, in the neo-colonial era before 1970. One relatively uneducated individual who had become a senior level manager related how he had learned English; he said, "It was easy. My boss said, 'No Spanish'!" Another told of being caught by a former chief engineer while eating on the job. The tone of such anecdotes was respectful; people expected leaders to be tough. The general managers continued to be demanding in terms of discipline and hard work. As Armando addressed a group of award winning production managers at a ceremony, he spoke firmly of the need for continuing to meet their targets rather than merely congratulating them on a job well done. Karl was repeatedly described in favorable terms by those around him because he was a "pusher." Thus, the high level people in the hierarchy were expected to demand discipline and hard work as well as push to get things done --social representations that the strong organizational culture of the organization had developed

and maintained over generations. The general manager could count on this historically determined context when he made an order.

Commitment. Another unobtrusive control is organizational commitment, the relative strength of employees' identification with and involvement in an organization (Mowday & Steers, 1979). In Bocagrande and Playa Negra it was characterized by organizational values that were held by employees who were willing to work hard for an organization to which they were proud to belong. In the bar, a company associate told me how his elderly mother had pulled him aside and said, "No matter what the company does, don't do anything to hurt it." People spoke of the company the way one would speak about one's homeland. This commitment also extended to performance as well. Bocagrande suffered a natural disaster that caused tens of millions of dollars in damage and killed 25 people. In the post-disaster period, there were employees who worked seven days a week for months to get production back on track. Another measure of commitment was tenure; the average was between 12-13 years for 12,000-13,000 employees. The general manager counted on this commitment when he asked for the cooperation of subordinates.

To sum up then, the direct control of the position and the culturally determined unobtrusive controls had created a dominant role for the general manager in both Playa Negra and Bocagrande. Without the framework of a policy to guide the general managers in their implementation of total quality management, they could readily slip into autocratic behaviors consistent with their role. This framework enabled Armando to avoid such autocratic behavior in relation to the quality council. Karl, on the other hand, followed his culturally determined pattern and engaged in managerial opportunism in relation to the council in Bocagrande-- that is, he made it into an extension of the general manager's office thereby preserving his power while maintaining some participation by facilitators so that his projects would get done. Only with a policy for implementing total quality management would the manager be guided to behave in a counter-cultural fashion-- e.g., Armando sat back and allowed the quality council to flounder, rather than dominate it, while he successfully deployed the total quality management policy at the other levels of the organization.

Finally, the high power distance of Central American society also supported the power given to the general manager's role. I will relate an example of this I

observed in Packaging, Inc., a LITEP, Inc. subsidiary in the capital city. It was a manufacturing unit with a payroll of around 500 that produced some of the packaging material used as an input to the LITEP production process. Packaging, Inc. differed from Playa Negra and Bocagrande in how it was staffed; there were professionally educated engineers who ran the operation and supervised its unionized workforce. Because it was located in the capital city, there was a clear separation between one's personal life and work. In a visit with the quality council, mainly department heads and supervisors, in Packaging, Inc. I was struck by how they had specifically excluded the general manager from attending their meetings. I had spoken with and observed him on a number of occasions and found him to be a gentleman who listened to what others had to say; he did not appear to be someone who intimidated subordinates. Yet the meetings were chaired by the second in command, the manufacturing manager. He had a great deal of authority but was not afforded the same deference as the general manager; he could run the meetings but people still felt free to express their concerns. The quality council would study an issue and then invite the general manager in to present its conclusions. The manufacturing manager had specifically designed the process in this

fashion so that people would speak their minds. The national culture and the emphasis on power distance played a major role in the deference given to the general manager. For subordinates to have an open discussion, he had to be absent.

#### Contrasts in Implementation

The process of restructuring the membership of the quality council in Bocagrande reflected the power of the general manager, Karl, and his ability to tailor the total quality management implementation process. The original quality council contained a mix of department heads and subordinates who appeared interested in the process. According to Karl, this was an error because the other department heads were not supportive of the total quality management process and he had to take steps to involve them more. Subsequently, he informed several of the lower level subordinates that they were "rotated off the council" and replaced them with two senior level people from his office. He described the council as more of a "manager's council" than an independent group.

One of the remaining council members independently stated something similar. He stated that the council now was filled with one of two types of people: (1) either people interested in doing what the general manager wanted because they were from his office and dependent on

him or (2) others who this council member perceived as engaging in ingratiating behaviors (i.e., the Spanish term, "chupa medias," literally translates as "sock sucker") in their relationship to the general manager. It was no longer independent, in his view. The general manager openly stated that he did not like it when the council objected to the projects he proposed. To keep the quality process moving in the direction he wanted, he chose to force the above change.

This was hardly consistent with the participative doctrine espoused by total quality management consultants but it did reflect the strong direct control of the general manager and how he consciously chose to modify the adoption process. The total quality management process was not a doctrine or policy to Karl but rather a cafeteria of interventions from which he could have chosen the appetizing portions (e.g., project teams) and passed over the less appealing items (e.g., an autonomous council).

In the case of the other site, Playa Negra, the council did prove capable of taking some initiative after 18 months of marginal activity, but even then only after the general manager ordered them to remain in the room until they developed a plan and they had chosen the second in command, the production manager, to head the

council. Armando had apparently tired of his laissez-faire approach and wanted action. The differences are summarized in the following tables (i.e., 5.3 and 5.4):

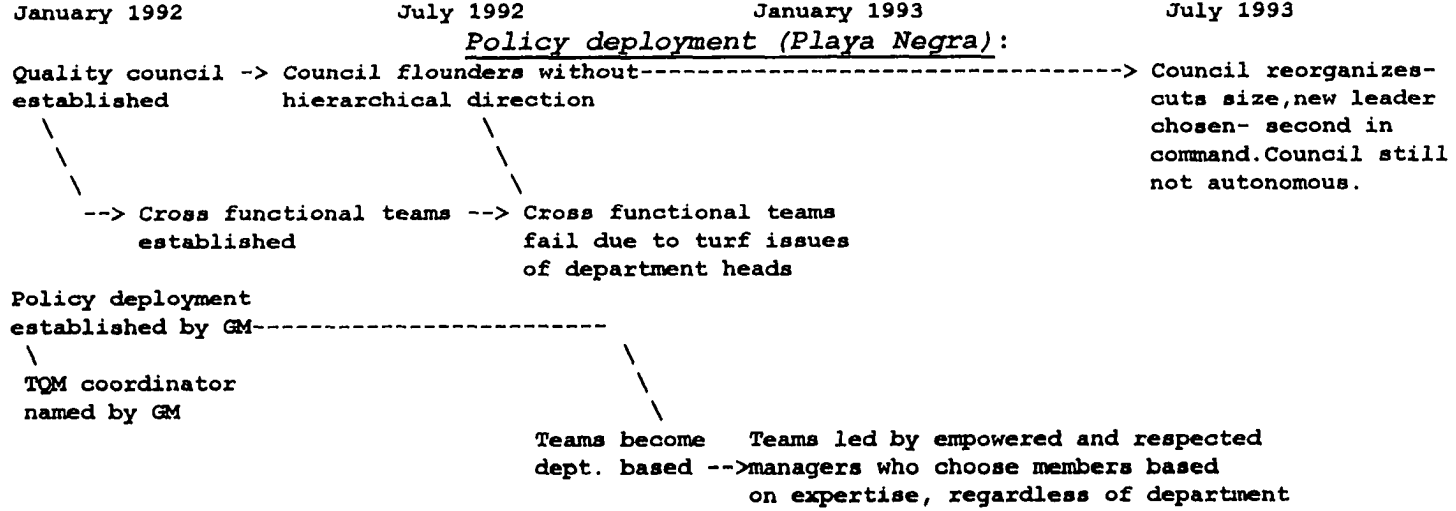


Table 5.3  
Managerial opportunism versus policy deployment  
strategies for implementing total quality management

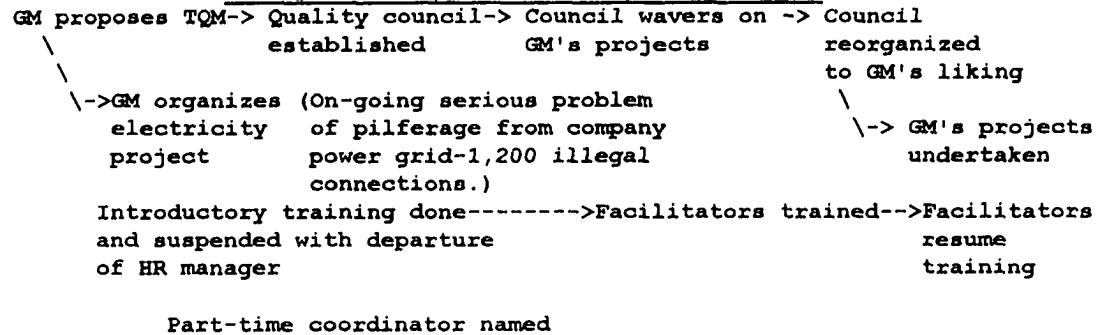
Factor	Observations relating factor to:	
	Managerial opportunism (e.g., Bocagrande)	Policy deployment (e.g., Playa Negra)
Description of implementation process:	Managers in council developed consensus view of TQM priorities and implementation strategy before pushing it downward	Massive training and implementation of quality action teams concurrent with consensus building process in council
General manager's role:	General manager coopted council to force preferential treatment of his proposals	Gen. manager allowed council to develop autonomous consensus while pushing basic TQM downward
Initial policy deployment:	Limited to preparing council & facilitators	TQM introduction, leadership training, prob. solving within functional teams. Pushed by GM through internal coordinator
General change in employee involvement:	None until manager's council was prepared	Employees involved in functional teams in established units so hierarchy was not threatened. Data-based dialogue used within established patterns.
Impact of department heads/supervisors:	Socialized dept. heads allowed general manager (GM) to coopt council.	Dept. heads were unable to cooperate without leadership. Turf consciousness precluded cross functional teams. Never functioned as autonomous council.
Risks for general manager:	Easy to slip into autocratic behavior. Socialization of department heads in quality council caused them to look to the general manager for guidance. The more they depended on the general manager the less autonomous they became.	GM risked alienating dept. heads if he pushed too hard too fast at lower levels. GM limited TQM policy deployment at lower levels to measures perceived by department heads and superv'rs as helping them.

Table 5.4

Chronology of implementation strategies



=====  
Managerial opportunism (Bocagrande):



A critical factor in contributing to more positive attitudes in Playa Negra (discussed below in the survey results) was that Armando deployed the total quality management policy at the lower levels of the organization through the appointment of a capable full time total quality management coordinator named Francisco.

Francisco was a bi-lingual industrial engineer with a masters degree in systems and around 15 years work experience, mainly for another large organization in Morazan. During 1991-1993 Francisco continued training the employees and working with quality action teams, in spite of the lack of effective guidance and support from the quality council.

In looking back on his two years as the coordinator, Francisco felt that progress had been made, although serving in a staff coordinator role had been frustrating, given the strong line orientation of Playa Negra. In the end, after the initial frustration of the cross functional quality action teams, he expressed satisfaction with the production quality action teams and described them in the following manner:

"A key operations manager was assigned a quality problem. He was then empowered to choose the members of his or her team. These people met and analyzed the specific problem. Significant improvements in quality outcomes resulted. The feedback from the market has been very positive."

Attributing the positive outcomes to total quality management alone was difficult as concurrently with the total quality management implementation, a very significant change in shipping also occurred. Nevertheless, the participants in Playa Negra felt positive about the process; desirable positive outcomes had been achieved. In the Fall of 1993, after several years experience with total quality management, Armando enthusiastically endorsed it at his new posting, where the process was just beginning, according to the corporate organization development manager (personal communication, Nov. 1993).

Armando, through Francisco, deployed the involvement strategy and trained all 520 salaried employees in effective communication and introduced almost all of the monthly employees to the concept of total quality management. This was in contrast to Bocagrande where Karl first attempted to get the quality council members to coalesce as an effective group that would support his point of view before pushing the process down the hierarchy to other levels of the organization. Armando's policy deployment approach focused on change at various levels of the organization. The impact was seen in the survey results mentioned at the beginning of the chapter.

Conclusions: Policy Deployment vs. Managerial Opportunism

Playa Negra and Bocagrande are similar production units yet the leader of each decided to implement total quality management in very different ways. This finding was consistent with Lewis and Seibold's (1993) hypothesis that innovations undergo intraorganizational modification during the adoption process. Each general manager followed the general pattern of housing total quality management in a parallel structure, characteristic of organizations not undergoing rapid change, yet each did it differently.

Playa Negra's general manager adopted a strategy of policy deployment. He introduced almost all of the monthly employees to total quality management, involving 36 non-bonus eligible employees and several bonus eligible middle managers in quality teams. He did not attempt to push the quality council in any specific direction in the first 18 months. In contrast, Bocagrande's general manager attempted to align the quality council with his view of total quality management but did not introduce all of the monthly employees to total quality management. I believe the lack of a policy caused him to adopt an approach that I have labeled managerial opportunism. In Bocagrande, 22 non-bonus eligible employees participated in five teams and eight

of these lower level employees were assigned to an electrical project of special interest to the general manager, due to a serious cost control problem. On the remaining four teams there were 10 bonus eligible senior middle managers. Thus, there were far fewer lower level employees involved early on in Bocagrande than in Playa Negra.

The impact was apparent in the survey results; total quality management participants below the quality council consistently scored higher than the non-participants in Playa Negra. The interviews also indicated that a sense of teamwork had developed within the production units of Playa Negra and the foremen were pleased to be viewed as more than a pair of hands. Getting a large organization to inch beyond homeostasis required policy deployment, led by Armando and coordinated by Francisco, the capable and committed total quality management coordinator who had been designated by the general manager.

The strategy in Bocagrande also began with a policy deployment effort. For example, in Bocagrande the same communications training effort took place; all monthly employees attended the same course as in Playa Negra. In the first half of 1992 a series of total quality management introductory courses for approximately 140 employees was conducted by the LITEP, Inc. human

resources manager assigned to the capital city office. He left the company and the training was discontinued as of July 1992. The introductory training course did not resume until July 1993 when a group of highly motivated facilitators from Bocagrande conducted the course. The plan expressed by the general manager was, "We want to get the various functions working together in one production district first before we train everyone" (personal communication, August 1993).

However, during the twelve month period from July 1992 to July 1993, Karl, the general manager of Bocagrande had discontinued the deployment strategy and focused his attention, relating to total quality management, on the alignment of department heads and key supervisors with his priorities. He discontinued attending to the lower levels of the organization with training and total quality management involvement. In Bocagrande, training during the 12 month period from July 1992 to July 1993 centered instead on internal leadership and facilitators for the higher level managers, both bonus eligible and supervisory, and five project teams.

The general manager of Bocagrande used his traditional direct and indirect control to get most of the council members to support his priority projects. As I said earlier, he referred to the council as a

"manager's council." At least one council member complained to me of Karl's stance; he expected it to be a participative forum and was disillusioned by the drift towards automatic council support for Karl's projects and opinions. This same council member also complained that the part time coordinator did not behave in a manner consistent with total quality management. As a result of Karl's opportunistic behavior, that resulted in the cooptation of the quality council and the suspension of training at the lower levels, the impact of total quality management did not significantly differentiate the participants from non-participants in Bocagrande as it had done in Playa Negra.

In sum one could conclude that total quality implementation in Playa Negra was facilitated by policy deployment and that opportunism in Bocagrande undermined the process.



## CHAPTER 6

### DATA-BASED DIALOGUE

In the previous chapter, it was noted that the experience of total quality management in Playa Negra coincided with more positive attitudes toward management than did the experience of total quality management in Bocagrande. As stated before, this can be explained, at least in part, by comparing Armando's policy deployment strategy with Karl's opportunistic style. Policy deployment seemed to have an impact on lower levels of the organization while managerial opportunism did not seem to differentiate the total quality management participants from the non-participants at any level.

While it may be enough to practice policy deployment in order to generate some positive attitudes, those attitudes can be enhanced even further if total quality management is integrated into an ongoing practice that already complements total quality management logic. One such practice is data-based dialogue, the topic of this chapter. The data is from Playa Negra only as too few production level participants in Bocagrande were involved in total quality management at the time of the survey to contrast foremen and production unit managers.

First, I will present findings in support of the second and final proposition-- i.e., **employees who are**

engaged in data-based dialogue and who work side by side with their supervisors in a hands-on setting will have more positive attitudes toward their supervisors than employees who do not work directly with their supervisor but are managed by the results they produce. This proposition was explored through both survey data and interviews. I will present findings that contrast the foremen involved in total quality management with foremen who were not participants at the time of the survey as well as these foremen with production unit managers, both total quality management participants and non-participants. I will show the following: (1) involvement in total quality management training and quality action teams enhanced their attitudes as measured by the variables surveyed; (2) the structure of the production unit contributed to data-based dialogue, with the statistical findings (presented in table 6.2) showing more positive attitudes towards management held by foremen than by production unit managers; (3) that total quality management is complementary to data-based dialogue, with the statistical results shown in tables 6.3 and 6.4; the foremen involved in total quality management had the most positive results in the survey whereas the production unit managers not involved in

total quality management had the lowest scores on the variables surveyed that were statistically significant.

As can be seen in table 6.1, the five foremen involved in total quality management at the time the survey was administered expressed significantly more positive attitudes than the five non-participants, who were also foremen, on the following three variables: upward influence, activity feedback, and group efficacy. Upward influence and activity feedback have already been discussed. Group efficacy measured the degree to which the respondents perceived working in groups as (1) more productive and fun than working alone and (2) promoting greater candor between workers.

Only the non-parametric Kruskal-Wallis test, which ranked the means, proved significant whereas the median test did not. In addition to the small sample size, caution is indicated by the lack of corroboration from the median tests in the cases of upward influence, activity feedback, and group efficacy.

Also, one must be wary of a Hawthorne effect (Homans, 1965) here as relatively little training had been pushed down to the level of the foremen in the past. Inclusion in such a program was perceived very positively by the participants with whom I spoke. The survey results appear below.

Table 6.1  
Significant differences between TQM population  
and non-TQM foremen in Playa Negra  
Kruskal-Wallis nonparametric tests

Upward influence:					
Mean Rank	Cases				
7.60	5	IN TQM = Yes			
3.40	5	IN TQM = No		Corrected for Ties	
CASES	Chi-Square	Significance	Chi-Square	Significance	
10	4.8109	.0283	4.8402	.0278	
Activity feedback:					
Mean Rank	Cases				
7.60	5	IN TQM = Yes			
3.40	5	IN TQM = No		Corrected for Ties	
CASES	Chi-Square	Significance	Chi-Square	Significance	
10	4.8109	.0283	5.0241	.0250	
Group efficacy:					
Mean Rank	Cases				
7.50	5	IN TQM = Yes			
3.50	5	IN TQM = No		Corrected for Ties	
CASES	Chi-Square	Significance	Chi-Square	Significance	
10	4.3636	.0367	5.7143	.0168	

Because the statistical evidence was not overwhelming, I asked the respondents, during interviews, to describe their exposure to training and involvement with total quality management. I wanted to understand what training they had received and what was their perception of its impact. The foremen were very supportive of the communications and total quality management training, as the following comments demonstrate.

Sergio N. Ortiz described the impact of the effective communications seminar in the following terms:

"... we had this course and it seems that there was more coming together in the administration ..., because perhaps before a foreman did his job and I mine. Each was doing his own. Later, I saw that there was more coming together, more exchange of ideas...."

Javier Tomas commented on total quality management training program:

"TQM is a matter very different from what we used to use with the worker.... They are accustomed to rough talk. ... this is the way to speak with someone. ... even to the point of saying please. ... it's a matter where one gains a lot because the worker is more agreeable to doing whatever work. ...He's more willing to do whatever. ... Now one must lower oneself so that the man cooperates. ... Because of this I say that TQM has helped a great deal. ... There are some ... things that I have applied ... with pretty good results with the worker because one must take them into consideration. ... One must put yourself at their side or ask them how they feel. ... there is a way to accommodate the other side so that the unit is productive and works well to take advantage of the work day."

When Javier speaks of "units," he is referring to individual workers. Javier felt that total quality management had a great impact on the way he works with union laborers. Not only is he more respectful and considerate, he even "lowers himself to say please to the unit!" Such words reflect the importance of social hierarchy within the production unit and, in Javier's perception, he was in the process of improving the human relations in the workplace.

Hernan Santos also spoke about the total quality management training:

"With the TQM course it's as though there has opened more the vision for me and my coworkers that what we do is something important for the company ...."

Hernan Dominguez stated that the total quality management training had affected him in the following manner:

"...we have a continuous improvement program. We see it that way. Each week we meet for an hour and a half with the overseer and fix objectives. ... Before this we didn't have this vision of things- we worked mechanically- we had to reach a certain volume. Now no, we have to do the same jobs but trying to improve quality and better acceptance by our client. In our case our client is the overseer. For him, when we reach the goal or surpass it, he feels very good and it satisfies us to have done a good job."

When speaking of the impact of the total quality management training, Jaime Naboia related the following:

"We, in that time, were almost the worst production unit ... and at the moment we are almost in the first four or five places. ...I feel very proud to have participated and to at least have given something of my ability to solve this problem."

Thus the participants perceived total quality management training as having had a positive impact.

Another perspective to investigate is the impact of structure of the production unit. As the following table indicates, the work structure appears to be the dominant factor, not total quality management. Foremen who work with their superiors, the production unit managers, in a team maintain a more positive view of their superiors than the production unit managers who do not work as closely together with their superiors, the area managers. The relationship between the production unit and area

managers tends to be one of management by results. In the following table, the attitudes of the foremen are contrasted to those expressed by the production unit managers, based on their job level rather than their participation, or lack thereof, in total quality management. The attitudes of the foremen are more positive than those of the production unit managers for the following variables: support for innovation, facilitative leadership, cooperation, upward influence, and activity feedback.

Table 6.2  
Foremen vs. production unit managers in Playa Negra

Support for innovation-Kruskal-Wallis test:					
Mean Rank	Cases				
15.10	10	Foremen			
9.62	13	Production unit m'gers/	Corrected for Ties		
CASES	Chi-Square	Significance	Chi-Square	Significance	
23	3.6962	.0545	3.7443	.0530	
Support for innovation-Median test:					
		Foremen	Production unit managers		
> Median		7	3		
< Median		3	10		
Cases	Median		Exact Probability		
23	3.00		.0397		
Facilitative leadership-Kruskal-Wallis test:					
Mean Rank	Cases				
16.15	10	Foremen			
8.81	13	Production unit m'gers/	Corrected for Ties		
CASES	Chi-Square	Significance	Chi-Square	Significance	
23	6.6240	.0101	6.7576	.0093	
Facilitative leadership-Median test:					
		Foremen	Production unit managers		
> Median		6	1		
< Median		4	12		
Cases	Median		Exact Probability		
23	4.00		.0186		
Cooperation-Kruskal-Wallis test:					
Mean Rank	Cases				
15.60	10	Foremen			
9.23	13	Production unit m'gers/	Corrected for Ties		
CASES	Chi-Square	Significance	Chi-Square	Significance	
23	4.9846	.0256	5.1212	.0236	
Upward influence-Kruskal-Wallis test:					
Mean Rank	Cases				
15.60	10	Foremen			
9.23	13	Production unit m'gers/	Corrected for Ties		
CASES	Chi-Square	Significance	Chi-Square	Significance	
23	4.9846	.0256	5.0774	.0242	

Table 6.2- continued  
Foremen vs. production unit managers in Playa Negra  
 Activity feedback-Kruskal-Wallis test:

Mean Rank	Cases				
15.90	10	Foremen			
9.00	13	Production unit m'gers/	Corrected for Ties		
CASES	Chi-Square	Significance	Chi-Square	Significance	
23	5.8500	.0156	5.9951	.0143	

Though the contrast in attitudes between the two levels was apparent, one might still ask the question whether or not total quality management training and involvement have a complementary effect to the structure of the production units? That is, did total quality management training and involvement help people develop communication and analytical skills that enabled them to engage more effectively in the already existing data-based dialogue within the production units? To test this statistically, I contrasted the attitudes expressed by the following four groups: (1) foremen in total quality management, (2) foremen not in total quality management, (3) production unit managers in total quality management, and (4) production unit managers not in total quality management. The Kruskal-Wallis test reveal that the mean rankings descend in the order expected, as is shown in the following table:



Table 6.3  
Significant differences between the four groups

## Kruskal-Wallis 1-way ANOVA

## Facilitative leadership:

Mean Rank	Cases				
18.40	5	Foremen in TOM			
13.90	5	Foremen not in TOM			
8.88	8	Production unit managers in TOM			
8.70	5	Production unit managers not in TOM			
	--				
	23	Total		Corrected for Ties	
CASES	Chi-Square	Significance		Chi-Square	Significance
23	7.7266	.0520		7.8824	.0485

## Upward influence:

Mean Rank	Cases				
19.30	5	Foremen in TOM			
11.90	5	Foremen not in TOM			
11.81	8	Production unit managers in TOM			
5.10	5	Production unit managers not in TOM			
	--				
	23	Total		Corrected for Ties	
CASES	Chi-Square	Significance		Chi-Square	Significance
23	10.9746	.0119		11.1790	.0108

## Activity feedback:

Mean Rank	Cases				
20.10	5	Foremen in TOM			
11.70	5	Foremen not in TOM			
9.38	8	Production unit managers in TOM			
8.40	5	Production unit managers not in TOM			
	--				
	23	Total		Corrected for Ties	
CASES	Chi-Square	Significance		Chi-Square	Significance
23	9.7484	.0208		9.9902	.0186

It is visually apparent in table 6.4 that the distribution of the medians is consistent with the results expected. In the case of the median tests, the significance is not reported as there are too many cells that have frequencies of less than five, thereby failing to satisfy a convention required for the Chi-square test. However, one can visually appreciate how the number of respondents above the median descends as one moves from

left to right-- i.e., from the foremen in TQM, foremen not in TQM, production unit managers in TQM, and, finally, to the production unit managers not in TQM.

Table 6.4  
Distribution within the four groups

	Median Tests				
		Groups*			
		1	2	3	4
Facilitative leadership	> Median	4	2	1	0
	< Median	1	3	7	5
Upward influence	> Median	5	2	4	0
	< Median	0	3	4	5
Activity feedback	> Median	5	2	3	1
	< Median	0	3	5	4

\*Group: 1=Foremen in TQM; 2=Foremen not in TQM; 3=Production unit managers in TQM; 4=Production unit managers not in TQM

In the preceding, the following is represented by the statistical findings: (1) In table 6.1, foremen in the total quality management program expressed more positive attitudes than foremen who were not involved; total quality management and training appeared to have had the desired impact on employee attitudes. (2) In table 6.2, with no distinction between participants and non-participants of total quality management, the foremen expressed much more positive attitudes than the production unit managers; the structure of the work unit seemed to have had an impact on their attitudes. (3) In tables 6.3 and 6.4, the four groups are cross tabulated. The foremen in total quality management expressed the

most positive views and the production unit managers not in total quality management the least positive; it appears that total quality management had a complementary effect on the work structure.

In July 1993 I returned to Central America to interview the foremen and the production unit managers in Playa Negra to better understand the impact of structure within the production unit. Similar conditions existed in Bocagrande so I did not feel the need to duplicate the interviews there.

#### Impact of Work Unit Structure on Data-based Dialogue

Through quotes from the interviews I analyzed the production units in terms of the following: (1) frequency of interaction between superiors and subordinates; (2) support for innovation; (3) need for support from supervisor; (4) problem-solving consultation; (5) access to critical information; (6) sources of pride; and (7) need for improvement.

#### Frequency of Interaction

I asked the respondents for their explanation of why, according to the survey, the foremen seemed to have a better view of the production unit managers than the production unit managers had of the area managers. I wanted to see if there was a pattern of interaction apart

from that created by total quality management that contributed to the positive attitudes of the foremen. The consensus was that the frequent interaction between the foremen and production unit managers was an important factor. By contrast, the relationship between the area manager and production unit manager was more oriented toward the provision of information and assistance with non-routine problems with other departments or labor issues. The responses indicate that the foremen and the production unit managers met three to six times daily as they worked together to plan the work and mutually solve problems in the same production unit, a geographically concentrated area. The production unit and area managers met less frequently. Their relationship was one of supervision and management by results. Typical responses are provided below.

#### Foremen

The foremen and the production unit managers communicated frequently on a programmed basis. The routine, according to one foreman, was the following:

"At six a.m. we speak to clarify what is to be done; at 6:30 after the personnel have been dispatched; at 10 in the morning for the estimation regarding the boxes that one is to get in the day; at 12:00 noon to know what production is required, what problems there were in the morning ...; at two in the afternoon we do another estimation to see if we're in agreement and the last time always at 3:30 or 4:00 in the afternoon to see if everything came out right and what is to be done the next day."

Another foreman's view is presented below. Sergio N. Ortiz stated,

"The overseer speaks to me, perhaps, two or three times in the afternoon and two or three times in the morning. ... Of course, he is the senior boss of the unit and it's him that has to give the true orders. Sometimes I go to him or he calls me to the despatch point and we determine what measures to take."

In the preceding one notes three points: (1) the contact was frequent throughout the day; (2) the foreman seemed to feel the need to state that the "overseer" was the boss; and (3) the foreman emphasized the collaborative nature of their problem solving.

Another foreman, Javier Tomas, also spoke of giving suggestions to the production unit manager. He stated:

"... often the worker in the field looks for the most comfortable way to do the work...And these are some of the times one has conversations which are not the same as simply receiving instructions."

Foremen generally still use the term "overseer" whereas production unit managers do not. They are more apt to call themselves "administrators," the last title used in the evolution of this position. The current official title in Playa Negra is "manager." The titles reflect the evolution of the managerial style of the position. Decades ago overseers used to wear pistols, ride mules, and require military-like discipline. The Spanish term for "overseer" is "mandador." To "mandar" is to "command, order, direct, decree..." (Cuyas, 1972).

Later the term "administrator" came into vogue since that was what the individual assigned to the production unit did-- he carried out specific orders and attempted to follow a budget prepared by others in the superintendent's office but was reportedly not as socially involved with the workforce as had previously been the case (senior employee, personal communication, Aug. 18, 1993). The move in 1993, based on a desire to cut costs, was to make the administrators into managers who control their own costs on a daily basis. Yet, "mandador" was still in use; even Karl referred to the production unit manager's position as the "overseer." I viewed the use of the term "mandador" as a social representation of an autocratic form of leadership that was evolving.

However, the foremen do not direct or "mandar" the union labor in the same way. Let us listen to Sergio again:

"... the overseer tells me who is abusing the product and one goes directly to the crew that is committing the error... one does not speak directly of the error because there could be friction and they might even work worse. Rather, one approaches them and speaks with them ..'Listen, boys'.... and detects where the problem is to see if it can be corrected... I can't go and directly interfere. I must proceed with tact so that there is no difference of opinion but rather that they themselves look for the problem."

The term "boys" does not refer to young males but rather to people of lower socio-economic status who might be any age up to perhaps forty years old.

I asked Sergio how the overseer spoke with him. He replied:

"Perhaps he reprimands me, in a polite manner, and we've never had serious problems. If he reprimands me and I see that it's my error I try to correct it...."

I noted that the LITEP production people were responsive to negative feedback and willing to accept personal responsibility for their actions to a greater extent than is commonly the case in Latin America. This could be due to several factors including the following: data-based evaluations made of the production employees, the military-like discipline of the production department, and the lower to middle class origins of most of the production employees-- they were not the sons of the rich and famous of Morazan.

Another foreman, Jaime Naboia, spoke of the content of the typical interchange with the overseer at the end of the day. He stated:

"... we receive instructions regarding what one is going to do the next day and we inform him of any problems, whatever has taken place in the course of the day and we give opinions to see in what way we can help to expedite something that could hold us up the next day."

Jaime spoke of the ordinary interchange of information but also mentioned that the foremen gave their opinions.

Production Unit Managers

In reference to his contact with his area manager, Salomon Rivera, a production unit manager, made the following observations:

"It depends on what is needed. We meet about every two days but are in contact everyday... Sometimes he comes to see me and sometimes I go to the office... He almost always visits me, not only when there are problems, but rather as part of his routine to see if there is something new, or what has happened if there is a quality problem... When there are problems I can almost always resolve them myself with my people. When I can't, then I go and speak with him. What I do is if something happens I take care of it and I personally tell him about it... For example, ... I had a problem with (an employee)... I spoke with all the foremen, with him, and later I told the area manager about it so that he would speak with him... First I spoke with him and later with the area manager."

The emphasis on autonomy (e.g., "I take care of it"; "First I spoke with him") was repeatedly mentioned by the production unit managers. Another production unit manager, Fernando Pintel, when asked about how often he spoke with his area manager, stated,

"About twice a day. Generally we speak about quick and corrective measures to take in the course of obtaining the desired level of production... We also speak of material requests for home repair that sometimes aren't arriving on time ... this is what I most often speak with him about."

The materials came from another department. When routine procedures did not function, the area manager was brought



in. Timely home repair was one way the production unit manager attempted to satisfy the union work force and avoid grievances.

Another production unit manager, Bolivar I. Hernandez, described the communication with the area manager in the following manner:

"He speaks with us periodically, on an average once a day, to tell us or inform us of some details, changes for the next day, special programs for the following week ... more than anything, informative items."

The emphasis here is on the area manager as the communicator of information.

Much of the interchange of information, instructions, or suggestions takes place in the production area in addition to regular meetings. One area manager generally goes to the packing location everyday at a specific time, as mentioned by Victor Chacon, a production unit manager:

"Well, with the boss we converse periodically. We have three meetings per week; this is official. Depending on the theme, what he brings to converse with us, it could last 1 to 1.5 hours. Aside from this, at 8:30 or 9:00 he comes by the packing area. There, if he wants any information or wants something and if we are there he speaks with us. If he has something important to tell us, he looks for us. If we have something, we look for him. After nine, he's in his office."

Another production unit manager stated the following:

"We have meetings on Tuesdays, Thursdays, and Saturdays. On the other days there is personal communication. In these meetings we deal with company topics, instructions and whatever change we have to propose."

Thus, communication is frequent and takes different forms: (1) regular formal meetings; (2) daily crossing of one another's paths at a prescribed location (the packing area where the production output is prepared for shipment); and (3) in the office or field should the need arise.

#### Support for Innovation

Support for innovation is crucial to total quality management. It was another factor that significantly differentiated the foremen from the production unit managers.

#### Foremen

Javier Tomas, a foreman in an area uninvolved in total quality management at the time of the interview, described how the innovation process is changing.

"Right now, well, in the years I have worked in this unit, there have been good ideas developed right here by the personnel but all the ideas come from outside. Lately some work has come out of the experimental unit... A foreman had a few ideas that resulted positively. They took these to test them in another area..."

One used to tell the overseer and the overseer had to ask the opinion higher up of the senior bosses. If he saw that they rejected it or didn't listen to him or he saw that they weren't interested- everything died there... this often used to happen years ago. Not like now, whatever idea that one has receives more attention. ... since total quality teaching came, from that time until

now, more consideration has been given to the ideas that the foreman and worker have."

Hernan Santos, a foreman in an area that was involved in total quality management at the time of the survey, had the following to add regarding the development of innovations or new ideas:

"...something is useful we bring it to a meeting that we have every Monday. We explain the idea and we're all in a group... he who brings the idea explains, it's like he's going to sell, explains the benefits of the idea..."

I asked Hernan if there were meetings in other production units. He responded in the following manner:

"Perhaps the other neighboring production unit has something that could be of use to you, but nevertheless, since there is no communication, perhaps the neighbor is doing something of interest, of benefit to the company, but one does not do it because there is no communication or meeting- that we should do so that everyone in the production unit could present things that would be of use to the company and for us in the administration."

Hernan may not have been aware of the meetings occurring in other production units. The point he made was that meetings are essential to transmit and discuss innovations. In his area this is done. Where meetings do not occur, the communication process is limited.

Jaime Naboja, another foreman of the total quality management area, spoke of the importance of statistical analysis describing it as "the best way to measure work." The statistics are descriptive and generally used in variance analysis. They are collected at different

stages of the production and packing process. Managers typically use this information daily, and even several times a day, to pinpoint difficulties for trouble shooting and follow-up. A government official visiting from New Zealand described the data collection processes and quality controls as the best he had ever seen in production facilities throughout the world.

However, the idea remains that ideas come from the top. In the words of one foreman involved in total quality management: "... the overseer speaks with the manager and later goes to the field and tells us how the work is to be done. Then we have to follow-up. The ideas come from above."

#### Production Unit Managers

Salomon Rivera, a production unit manager, reported the following:

"Well, there are certain changes-- for example in the plant, there are innovations-- ... first the area manager had them... he took me first and the plant administrator to see how they were doing in other plants... Almost always they experiment in another plant. When they are going to implement it... we go to see how they do it there to later implement it here; that is, they give us a training program, an idea."

Fernando Pintel, another production unit manager, spoke of locally determined innovations.

"... the idea could come ordered from there or it could be one that one implants here. Generally it comes from here due to the need that one sees while executing the work."

Bolivar, another production unit manager, spoke of the impact on innovation of total quality management.

"We, based in the experience that we had last year with a total quality group, have the good fortune that... 80% of the administrative employees in the entire production unit worked in this program... Based on this we began meeting officially, in an organized manner, once a week each Monday... From this come different ideas to put into practice ... based on the consensus of the entire administrative group of the production unit... We performed evaluations, checks. We kept certain statistical data to demonstrate that it was possible and it proved positive."

Geraldo Santos, also a production unit manager, stated that communication, as an innovation, had changed:

"Well, now the communication is much more open... The mentality is changing from top toward the bottom at all levels... For example, I had a case on Monday. The secretary general of the union came and told me I had to change an order... I called at 6:40 and at 7:00 I had an answer. I called the wharf and the labor lawyer and assistant production superintendent came to provide consultation... before, this took a little longer... they didn't used to find out until a serious problem would break out. Now, they are avoiding this in this manner. The communication is more effective and they are paying more attention to the situations that one has here."

The entire administrative staff-- 520 monthly employees-- attended a four day effective communication seminar provided by a popular local consultant. Getting senior people to pay attention to the requests of the lower level employees was one outcome attributed to improved communication by Geraldo.

Victor Chacon, another production unit manager, responded in the following manner when asked about how innovations were put into practice:

"New practices, in general, are not developed without the consent of senior management, without the consent of the company union. Supposing that an agreement has been reached between the two, the practices that they tell us are the practices we implement. They call us to a meeting and explain what is desired. Then we direct ourselves to our production units and call our personnel to a meeting and we tell them.... The foreman sometimes has already designated a person who is going to do this work. Then we all participate to see if what is said or desired is what is being done with the worker."

Contrast the above with what Bolivar described regarding total quality management. Victor's area was not part of the total quality management effort at the time of the interviews. His description related to a change in the modus operandi of the operation. Bolivar would have to do the same because the production units were linked to the same union and company. Yet Bolivar, whose group was in total quality management, described the quality meetings they held internally and the changes they were able to produce on their own. The approach to innovation taken by the two contrasts the passive hierarchical approach described by Victor versus the more involved approach expressed by Bolivar.

Need for Support from Supervisor

Within hierarchies one counts on support from one's supervisor to assist with problems that one cannot resolve independently. When asked about such circumstances within the production units, the respondents offered the following insights.

Foremen

Five of the eight responses were at least partially production related, such as a lack of materials or people, clarification of the labor agreement, or the need to correct improper practices carried out by union labor. Manuel Dominguez stated that he needed the help of the production unit manager "when we need materials, when these are lacking." Hernan Dominguez spoke of the need for the overseer's support in situations where the union labor was uncooperative. Hernan stated, "...

"... the workers see us, perhaps, as an adversary, as the enemy. At such a time we need to look for the overseer so that he, as an entity with greater authority, can fix the problem. Now, then- this is a labor case... we need his daily help."

One foreman spoke of an effort to listen to the union workers.

"I remember one time that always sticks in my mind, when we... were doing a campaign to reduce absenteeism... we spoke with our overseers. Well, we thought that one day ... we would call the crews together and speak with them about all the themes that concerned us. The consensus of we three, my coworker, the overseer and I, was that it would be better to do it crew by crew. There were five

units. We conversed about everything. They brought out the problems they had in the field-- if they had problems with tools, with the equipment-- ... all these things we grouped in order of priority. This helped us a great deal. The overseer helped us a great deal and we worked on this for an entire week but it gave good results."

I viewed the preceding as an excellent example of dialogue within the production units.

Jose Urbano spoke of the need for support to fix equipment.

"When we have problems in the field because they don't fix our equipment, one reports the damage. ... We need the support of the boss because he pressures and they give us maintenance and do the urgent repair for us."

One foreman spoke of an ordinary problem that went on for years. He went to his boss, who normally could resolve such a problem, but who did not provide assistance. The foreman chose not to complain to higher levels because "reprisals" could have been taken against him. The problem was eventually resolved but through no help from his boss. He ended the story by saying, "Sometimes it's better to be quiet." If his boss was not in agreement, the subordinate in this case sometimes felt he had little recourse, because he feared reprisals. Involvement within the organization is possible around work improvement but certainly not in confronting the superior in a manner that would put his or her authority into question.



### Production Unit Managers

Production unit manager Samuel Bolanos mentioned that he had a housing problem that was solved by his area manager. Housing was in scarce supply, the housing units were generally old, and the maintenance budget was limited. The combination of these factors created a situation where influence was sometimes needed within the organization to obtain a decent house or get repairs done. Standard bureaucratic routines could prove inadequate for obtaining what one wants. This was a typical problem that the area managers resolved in their support role. Their ability to intervene in such circumstances helps them maintain their power. The production unit managers typically do not express the need for production related help, only basic information on what volume and type of output is needed. However, housing involves other departments where the production unit manager lacks influence.

Another typical problem involving another department was engineering maintenance. Bolivar Inocente mentioned the following when asked when he needed the help of the area manager:

"Well, generally when we have problems. Individually, I do not have many labor problems... I feel well prepared to deal with labor problems and time has told the story because I resolve the problems myself by reasoning and speaking with the people... There exist other problems where I do

need his help and it is when we have problems with other departments, such as the mechanical shop, ... when an expensive motor is damaged. As this is very dynamic I need help immediately... I don't know the reason... that they don't attend to this problem in time and I then need the cooperation of my boss... he goes to the general manager if necessary. Then immediately comes the solution."

Victor Chacon, another production unit manager, stated that he too went to the area manager for assistance with labor problems: "... when we have to take x labor relations decision- such as a disciplinary sanction- I consult." The labor union was company wide and disciplinary measures taken must be perceived as fair. Otherwise a reaction could occur that could hold up production.

#### Problem-solving Consultation

When asked whom they spoke with to resolve problems, the respondents offered the following comments.

##### Foremen

They generally stated that they would speak with their boss. However, many had others to whom they would go in addition to or instead of their boss. One stated:

"Practically always one must direct oneself to one's boss... but there are occasions when... one has more trust... with the timekeeper..."

For the reader's information, the timekeeper was the production unit manager's assistant.

Hernan Dominguez said that he speaks with a sub-foreman, his assistant. If between the two of them they

cannot find a solution, they direct the matter to the overseer. In the words of the foremen's assistant,

"I always speak with my coworker... We reach agreement and we approach him. We explain the situation to him... He tells us that he will ask about it. He comes down again and speaks with us and we reach agreement."

Thus, the production unit manager is not perceived as having the last word and the foremen expect him to consult with his superiors.

Finally, Sergio, a foreman, mentioned that he consulted with the overseer, his coworkers, and also with the crews. According to Sergio, the union workers understood their work better than anyone.

"They have a great deal of understanding as well regarding their work. I believe that there isn't anybody who doesn't have more ideas about the work that he is doing."

#### Production Unit Managers

When asked whom they spoke with to resolve problems, three of the production unit managers responded that they spoke with their immediate boss. When asked, Bolivar Inocente, stated the following:

"Mainly with someone who has more experience than I do. Generally, if it's a problem inside the district, I speak directly with my boss, the superintendent. If he's not to be found in the area, I speak with a colleague. And if I see that it is a more serious problem, I look for a person with more experience than I have, for example, ... a man with many years of experience as a production unit administrator. Therefore, I look for him when I have a problem that I can't resolve."

### Access to Critical Information

Cost information, departmental objectives, and an understanding of the decision-making process are fundamental to the total quality management process. To what extent were the foremen and production unit managers informed regarding these matters? The responses here are fairly straightforward in terms of costs and providing information to decision-makers. The production decisions are based on detailed cost and volume information provided by the production units. However, what was perhaps more interesting was the changing role of the foremen in how they handled information. Victor Chacon, a production unit manager, spoke of the participation of the foremen in cost management.

"They participate with us when we make the costs. For example, they give us ideas, they give us productivity, because they know the personnel. Based on this, we arrive at the costs. Later in the same work week, we speak of how the costs are behaving, in what accounts we are a bit behind and in what accounts we are a little overspent ... to be able to make corrections ... possibly in the next month we will begin to give them statistics where they can have daily data and it should be simple-- adding and subtracting-- where they can record their data."

The foremen in Bocagrande were entering their cost information into the computer to get an up to date report on costs. At present, the cost report comes back to the production unit level several months after the costs are incurred. Yet foremen in Playa Negra are aware of the

costs of different workers. For example, when they have the flexibility, they choose less experienced workers for certain jobs to avoid paying more than necessary. They also understood that they must avoid overtime or time wasted. They are acutely aware of how their production unit fares regarding objectives as the walls of the office were filled with charts showing trends.

However, when asked what type of information was used by their superiors to make decisions the foremen expressed ignorance. They received instructions that they carried out. The company had a tradition of secrecy-- so much so that even executives professed ignorance at why certain things were done. Information was not routinely shared with lower level associates. Only that which they needed to know to do their jobs was shared. There was not a policy of sharing information with them so that they felt they were partners in the business.

#### Sources of Pride

I used critical incidents to determine sources of pride in their work.

### Foremen

Five foremen spoke of reaching their goals, another spoke of contributing and exchanging ideas, another of training. The remaining two spoke of their pride at becoming foremen. For example, Plinio Hernandez, a foreman, said, "... being a worker and passing to the administration one feels different- one is pleased because one has entered another level."

### Production Unit Managers

Five production unit managers were proud of achieving their objectives. The MBO program began about five years ago at the level of the production unit managers. It had become a critical part of their approach to management. Promotions, bonuses, and pay raises were all linked to achieving one's objectives.

### Need for Improvement

I asked the participants how the relationship between superiors and subordinates could be improved.

### Foremen

The following quotes from the foremen emphasized communication, empathy, and more contact.

Javier Tomas spoke how the company previously used to lend machinery to employees for personal after-work jobs such as hauling wood or agricultural crops.

However, the general manager's office ordered that this be stopped. Javier stated,

"If a worker goes to the overseer and requests the loan of a tractor...and the overseer denies it, the worker is resentful and I say that this has its repercussions in the workplace..."

Rationalization of the traditional bureaucracy through the removal of particularism (Gouldner, 1954) had its price.

According to Hernan Santos,

"... there are times when the bosses think that because they are bosses, they are of a higher level and many times they don't appreciate the subordinate. One thing that would be nice to implement is to have better communication, problems or no problems. Another thing would be that the foreman would be more sensitive to the problems of the worker because it's logical-- if you don't have problems you'll come to work content, satisfied. You come with the desire to work well. Many times there are foremen who when a worker comes and explains a problem, they tell them they must go do this job. ... This man won't go with the desire to do this job well. Thus, I believe that beginning from this point from the bottom to the top one can have a better relationship and improve the product quality .... one must put oneself in the shoes of the worker- it's him who does the work. We just supervise and if we don't have good labor, we have a problem. I think the rest of it is secondary."

Other foremen stated,

"More communication, more meetings, more get together with them."

"Always do the best-- do what's right so that he doesn't distrust me personally-- work well."

"... Regarding my subordinates, the workers, ... one must keep in mind as well their living conditions. One must look them over in the morning. If they

come with little sleep one must be tactful. I would like to have this ability to understand them to avoid problems in my work. ...

I think that if we had a little more information, the information that is managed at different levels, given that we're the last to know. ..."

"More than anything, to improve the hope is the mutual agreement between the worker and boss that a good relationship is what we want to achieve so that we have good results. There's always this that I'm the boss- I give the orders. ..."

"The first thing I would do in the work that I do is that we would walk together- the bosses ... so that between all we would see how to do the work. More constant, more contact with the overseer, more getting together. More getting together the more we can come to agreement, because sometimes since one is alone with the crews one wants to be here with the boss- maybe we would do things better or maybe I would show him what we need or something like that.

The magic is that one could do it. The hope is that one day one would do it. ... the worker would see that one is not alone all day; one has the support of someone who is giving advice."

#### Production Unit Managers

One of them stated,

"It would be better if the information coming from the general manager's office were increased a bit. ... They don't always explain their decisions to me. As far as the rest of it goes, I have a good relationship with my boss. I do my work and sometimes he tells me when I do well."

Another production unit manager, Fernando Pintel, stated:

"Well, I think that in many occasions we need to go down more ... to understand the idiosyncrasies of the people who one works with. ...."

Samuel Bolanos stated,

"I would have them tell me more of the problems that they have. Whatever problem, they would tell us and



try to resolve all sorts of problems that they have so that there is a better communication. And I think with better communication there is better productivity."

Bolivar Inocente spoke of the limited social life,

"Here the quality of life is very difficult. There is nothing to do. The personnel are primarily focused on their work. From the house to the job. One who does have the means- does not live a pleasant life- not with his family, not with his colleagues. It's a circle that is totally closed. One doesn't know other people. Only the same people everyday. One doesn't lead a normal social life like you could have somewhere else. There is this big problem. It's very pronounced here- totally pronounced. ..."

#### Conclusions: Data-based Dialogue

The structure of the production unit contributes to data-based dialogue by fostering: (1) frequent interaction between foremen and production unit managers; (2) the foremen's perception that their suggestions for innovation are important; (3) the foremen feeling that they are supported by their supervisors, the production unit managers; (4) mutual problem-solving between the foremen and production unit managers; and (5) greater access to critical information for foremen than used to be the case. Thus, the structurally based interaction between the foreman and production unit managers (i.e., data-based dialogue) is complemented by total quality management training and the emphasis on problem solving.

## CHAPTER 7

### DISCUSSION

I will now discuss the conclusions; present the implications for research, theory, and practice; indicate the limitations of my research in terms of generalizability, and finish with a concluding comment that summarizes the importance of my thesis.

#### Conclusions

The conclusions will be addressed in relation to the following points discussed in chapter two as a means of relating the findings of the study to the literature review: (1) how Armando's total quality management policy deployment, in conjunction with established organizational structures and routines, fulfilled the criteria listed by George (1992) for successful total quality management implementation; (2) the critical role of leadership to the implementation process; and (3) how the context for employee involvement affected the change process;

#### Attributes of Successful Total Quality Implementation

George's (1992) list of the attributes of successful total quality management implementation includes the following factors: (1) leadership, (2) information and analysis, (3) strategic quality planning, (4) human resource development and management,

(5) management of process quality and operational results, and (6) customer focus and satisfaction. I will discuss these in relation to the findings of the present research.

Leadership. Leadership was shown to be the driving force behind the success of the adoption process in Playa Negra. The personal leadership and involvement of Armando was essential to successful policy deployment. Without his clear and consistent support the attitudinal change of the total quality management participants would have been unlikely.

Armando housed the initial total quality management effort in a parallel structure. Ideally the quality council should have been involved from the start. However, given its inability to do so, it was crucial that Armando, through Francisco, continued to implement the training and quality action teams at multiple levels of the organization.

Information and Analysis. The emphasis in information and analysis is to manage by fact rather than intuition. Within LITEP, Inc. this organizational routine was already well established prior to the introduction of total quality management. Production routinely gathered extensive data on quality, cost, volume, and production techniques. Thus, the existing

routine was complemented by the analytical techniques and involvement of total quality management. This was the foundation for data-based dialogue, a structural support for employee involvement. Subordinates, such as the foremen, lacked hierarchical power by definition but were made to feel more involved through their suggestions and increased awareness of critical information.

Strategic Quality Planning. Armando's policy deployment was implemented in accordance with Ishikawa's (1985) suggestion that quality policies must reach the lower levels of the organization and be explicit and concrete. Employee attitudes in Playa Negra depended on this strategic clarity that enabled employees to work in a manner consistent with total quality management policy.

The quality council should have assumed this clarifying role but it seemed paralyzed due to the members' inability to act without the direct control of the general manager.

Human Resource Development and Management. Armando emphasized that training and employee involvement activities must be consistent with the company's total quality management goals, strategies, and plans. There was harmony between these human resource activities and the organizational structure. Armando realized that commitment to cross functional data-based management

required a level of interdependence with which department heads were unaccustomed. Therefore, Playa Negra first used functional teams and then built off established in-groups by permitting recognized leaders to form their own quality action teams, some of which were cross functional.

Management of Process Quality and Operational Results. Through data-based dialogue foremen were able to engage their superiors in data-based dialogue that reduced the tension of interpersonal dynamics in like manner as French bureaucratic rules did for the members of the French bureaucracies studied by Crozier (1964).

Customer Focus and Satisfaction. LITEP, Inc. focused on customer satisfaction and fed quality scores back to Playa Negra. This was another established routine that the total quality management program complemented.

Critical Role of Leadership to the Implementation Process

As we observed, Armando built on existing cultural and organizational contingencies while implementing total quality management. He had to be sensitive to these issues as the organizational culture promoted the managerial opportunism that Karl utilized to ineffective ends, in relation to the total quality management program.

That the two strategies differed was unsurprising and had been hypothesized by Lewis and Seibold (1993), in their recent review of intraorganizational diffusion of innovations. However, the fact that one approach proved more successful than the other leads us to the following conclusions from which one might draw guidelines for implementing total quality management:

- (1) The role of the leader is crucial to total quality management in Central America just as it is in other settings (Deming, 1986; Ishikawa, 1985; George, 1992). Managers implementing such change efforts must be aware of the cultural, both national and organizational, contingencies involved.
- (2) Within the cultural context of LITEP, Inc. in Central America, high power distance-- i.e., high acceptance of inequality within social institutions (Hofstede, 1980)-- was a significant cultural contingency. This made it too easy for Karl to slip into managerial opportunism.
- (3) Like other Latin settings, LITEP, Inc. in Playa Negra emphasized in-groups (i.e., allocentrism) within its collectivist society (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). This resulted in the strong intergroup tension-- i.e., pronounced turf battles between departments-- previously mentioned which runs

against the normal way of implementing total quality management through cross-functional teams.

(4) Employee involvement-- or as Deming (1986) called it, pride in workmanship-- is a fundamental aspect of total quality management in Central America as well as in other settings (Ishikawa, 1985; Lillrank & Kano, 1989). Acceptance of this basic premise enabled Armando to pursue a course of action that ran counter to the cultural induced inclinations to which Karl succumbed. That is, it was natural for Karl, a leader in a high power distance setting, to take charge when the participation process of the quality council faltered, in his view. To avoid yielding to culturally encouraged autocratic or opportunistic behavior, Armando used policy deployment, his road map or cognitive framework, to guide the implementation of total quality management.

Let us now retrace the initial action steps suggested by the literature and determine the extent to which Armando and Karl followed them:

(1) Both Armando and Karl interpreted the culture (Schein, 1992). Both realized that the continuity of the strong culture was a foundation for attaining the production output they were known for within the company and that they would have to build off this foundation in implementing total quality management. However, their

approaches were different; Armando proceeded with a clearly defined policy and used the culture as a foundation while Karl took advantage of the culture and lapsed into opportunism.

(2) As has been stated previously, both Armando and Karl understood that the implementation process needed to be modified during the adoption process (Lewis & Seibold, 1993).

(3) Armando and Karl acknowledged the organizational consequences of high power distance and allocentrism. For example, as was mentioned above, in relation to allocentrism, intense in-group feeling constrained horizontal, or cross functional, communication flows in Playa Negra. Also, Armando knew he had to restrain himself from dominating the quality council, as the high power distance of the society established the expectation that he would behave autocratically. Karl, on the other hand, used his position and his subordinates, a powerful in-group within Bocagrande, to coopt the autonomy of the quality council.

#### Effect of the Context for Employee Involvement

Spreitzer (1992) saw empowerment as comprised of the following four factors: meaning, competence, self-determination, and impact. The kind of low involvement referred to in the present research was defined as



involvement where meaning, competence, and impact were present but self-determination was absent. Based on the previously mentioned study by Hofstede (1980), high power distance appears inconsistent with self-determination at lower levels within Central American organizations.

However, we found that data-based dialogue permitted subordinates to contribute more actively with their suggestions than if they had based their comments on the power based political reality of the superior-subordinate relationship, where they were by definition inferior.

We found that the structural element of frequent interaction, between foremen and production unit managers, within production units created a basis for data-based dialogue independent of total quality management. However, total quality management complemented this structure.

#### Implications for Research

Further research might be conducted at two levels: replication and exploration of new contingencies. In terms of replication, the following hypotheses could be tested in organizations like LITEP, Inc. that are making a transition to total quality management:

- (1) In a transition to total quality management, employees will have more positive attitudes regarding the variables associated with total quality management if the leader deploys a clearly stated culturally appropriate implementation strategy than if the leader does not maintain a

clear and consistent policy suitable to the cultural and organizational contingencies.

(2) Subordinates have more positive attitudes toward their superiors in "hands-on" settings where they engage in collaborative problem-solving than subordinates have of hierarchical superiors who manage by results and do not collaboratively problem-solve.

Exploratory research could investigate a number of contingencies relating to implementing total quality management in high power distance and allocentric settings. According to Hofstede (1980), included in the list of implications of high power distance for organizations are centralization in tall organizational hierarchies with a large proportion of supervisory personnel. In Playa Negra, the production bureaucracy has seven levels of hierarchy from the general manager to the unionized workers. A transition to higher involvement could entail the elimination of several of these levels of hierarchy. Comparisons of tall and flatter hierarchies could be done through research to determine the impact on costs, output, quality, and employee attitudes.

Regarding allocentrism, the experience of Playa Negra seemed to confirm that one can move too rapidly in imposing cross functional groups. Where strong in-groups (i.e., allocentrism) exist, the transition to cross functional teams must be made with prudence. However, the assumption remains that cross functional groups are

desirable and the concern is simply how rapidly the transition should be made from functional groups. Research could be directed at the impact of this transition on employee attitudes. Would group leaders who are free to choose the membership of quality action teams select members from a personal in-group? Could such a non-departmental in-group (e.g., based on personal loyalties) facilitate the shift from functional to cross functional groups?

By personal loyalties I do not mean friendship. Respected group leaders usually have worked for the company for a number of years, probably at least ten in most cases within LITEP, Inc. During their tenure such managers have worked with many people within the organization and have developed an appreciation for whom they regard as competent and effective in working groups. Such people may be in other departments such as quality, materials, the container plant, research, engineering, or transportation, as there is some mobility from one department to another and also employees work in interdependent ways with those of other departments as well as their own. Therefore the respected manager chosen to lead a quality action team should have a sound idea of who the people are who could be of most benefit to him or her.

There are many additional contingencies (e.g., structure, industry, processes, gender etc.) one could address in building a contingency theory within total quality management in Central America. One could also attempt to correlate variables that seem to coincide with effective, efficient, and productive uses of employee involvement within total quality management.

#### Implications for Theory

An important theoretical question concerns the emphasis on autonomy or self-determination present in Spreitzer's (1992) definition of empowerment. Based on what I observed in LITEP, Inc. it is safe to assume that competence, impact, and meaning are important to highly involved workers. However, is the American emphasis on autonomy transferable or even important in other countries, such as those of Central America?

LITEP, Inc., with its machine bureaucracy and neo-colonial domination hardly seemed like fertile ground for the seeds of employee involvement. Yet the company appears to be progressing in its journey to its own version of total quality management, in accordance with Lewis and Seibold's (1993) hypothesis that innovations undergo modification in the intraorganizational adoption process. In the following figure I will list some of the

factors I thought constrained the process and others that facilitated it:

Figure 7.1

Constraints and Facilitators to the Adoption of  
Total Quality Management within Playa Negra

<u>Constraints</u>	<u>Facilitators</u>
Traditionality	Continuity Predictable socialized work force Commitment and loyalty
High power distance	Hard work & discipline Data-based dialogue
Allocentrism	"Simpatia" Interdependence

The interesting thing about all the concepts listed above was that the forces that limited the process also facilitated it when perceived from another perspective. Thus, traditionality did not mean that inertia precluded innovation; continuity, as manifested in the employees' commitment and loyalty, gave the change process a solid base. Along with high power distance came hard work and discipline, a legacy of the neo-colonial pressure to produce and export large volumes of LITEP. Due to international competition, neo-colonial exhortations from the U.S. forced both Bocagrande and Playa Negra to attempt to optimize production, improve quality, and control costs. This led to extensive record keeping and regular feedback to the production units, the data used in data-based dialogue. Allocentrism inhibited the

movement to cross functional groups but it also played a large role in "simpatia" and interdependence (e.g., between the foremen and production unit managers). Interdependence helped make data-based dialogue possible in that the foreman and production unit manager were dependent on one another. The preceding factors both contributed to and restrained the adoption process.

What then is needed for the employee involvement of total quality management to progress in a setting such as Central America? Is it autonomy or are there other factors to consider? Lillrank and Kano (1989) thought there was little in Japanese culture to make employee involvement successful except for hard work and discipline. Does involvement depend less on cultural attitudes that are apparently consistent with participation (e.g., low power distance, flat structure, and democratic values) than it does on hard work, discipline, or other contingencies in implementing the change process? Perhaps some additional data from Playa Negra will enlighten the discussion.

Armando certainly emphasized hard work and discipline but self-determination or autonomy was not as prominent in his view as that described by Spreitzer (1992). He did not seek participation for its own sake

and never asked when he knew the answer. He saw involvement as a way to foster a proactive workforce. He said that by asking people to participate they would come to him for assistance; he became even more powerful due to being perceived as a resource and the workforce became more proactive. This relates to Deming's comment that managers must know enough about the business to participate. Within the machine bureaucracy of LITEP, Inc., managers had worked their way up and learned enough about the business to be seen by subordinates as a resource, in addition to being a boss. He also recognized the interdependence of people within the organization. His view of involvement was highly contingent and not based on the premise that total quality management doctrine dictated a certain level of autonomy.

To resolve the inconsistency between Armando's contingent view of total quality management and the premise of employee involvement within total quality management, I will return to the definition of high involvement or empowerment. I explained that low involvement was a more apt term for what I observed in LITEP, Inc.'s machine bureaucracy as self-determination or autonomy was not present, while meaning, competence, and impact were. Self-determination is clearly moderated

by the degree of interdependence workers have with one another.

In activities that require coordination, interdependence is more important than self-determination. In organizations where large groups of people come together to attempt to achieve common goals, interdependence becomes critical. People are only self-determining to the extent that they can initiate activities that will enhance one another's efforts at attaining these mutually held objectives.

Such interdependence reflects the cultural characteristics described in the case (i.e., high power distance, allocentrism, and "simpatia"). People of collectivist societies or members of strong in-groups within individualistic societies experience more interdependence than they do self-determination. In a collaborative setting, such as a large machine bureaucracy, people are interdependent, not self-determining. "Simpatia" as a cultural script also reflects a strong sense of interdependence. In relation to power distance, leaders are defined by their followers and are therefore interdependent. Both Armando and Karl would not attempt changes that they knew would not have the support of their followers. In my five years in West Africa, I observed that even the traditional African



chief must be sensitive to the needs of his subjects or they will simply move away; the chief is still the chief but with no followers. Based on my observations and experience, Barnard's (1938) view of followers allowing leaders to lead has some credence.

Data-based dialogue is an example of interdependence that is appropriate to total quality management. Thus, the type of employee involvement leaders should seek in total quality management in Central America is data-based dialogue wherein competent people can experience interdependence in ways that are meaningful and have impact.

By contrast, empowerment appears to be an inappropriate vision for employee involvement for a machine bureaucracy in Central America. Meaning, impact, and competence must be blended with the society's expression of interdependence in "simpatia," high power distance and allocentrism and the organization's culture of commitment, continuity, hard work, and discipline. In Mary Parker Follet's (1918) view, the situation determines what one should do (i.e., the law of the situation).

#### Implications for Practice

I will focus on functional equivalence as a means to address cultural and organizational contingencies for

leaders who promote the adoption of total quality management. Gouldner (1954) discusses functional equivalence. He bases his definition on Merton (1949). One can often determine that the needs served by a social pattern can be achieved in other ways. These alternatives are the functional equivalents of the initial social pattern in that they may achieve the same outcome. Gouldner (1954) showed how a factory had been controlled through non-bureaucratic means, including particularism. When this control was supplanted by bureaucratic domination, industrial strife resulted. The managers who imposed the bureaucratic control displayed an ideological commitment to their particular form of domination rather than attempting to understand how particularism had provided a functional equivalent to the bureaucratic control they imposed.

In relation to LITEP, Inc. in Playa Negra, I will first address the elimination of hierarchical levels of supervision through functional equivalence. Then I will recommend how one might deal with a quality council in Central America and conclude with comments relating to policy deployment built on cultural and organizational contingencies.

### Functional Equivalence to Hierarchical Supervision

Given what we have learned about the functioning of the production units, it might be useful to consider alternative methods of coordination. Leaders such as Armando should engage in double loop learning to enable them to explore the functional equivalent of hierarchy that could conceivably be provided through greater use of computers. Hierarchy should be seen in terms of the functions it performs rather than simply a traditional form of domination. For example, rather than an area manager communicating in person, the production unit manager could communicate to the main office via a computer terminal.

High power distance societies, where LITEP is produced, emphasize tall hierarchies with a significant commitment of resources to supervision. In Playa Negra, Armando conceptualized the transfer of the former district managers to other countries as an elimination of one hierarchical level in production. However, the outgoing district managers were simply replaced by men who had previously served as staff assistants to the production superintendent; the position was renamed area manager.

The tension at this level is manifested by the professionally educated and relatively ambitious

production unit managers who made it clear that they only needed the area managers to solve non-routine problems with other departments. Yet, I asked one of the area managers if he now saw himself as more of a coordinator/support person or as a boss. He responded, "I'm a boss." The traditionality of the organization rewarded line positions with status, authority, and power.

The tension here seems to relate to high power distance. The area managers enjoy their power and status. Armando seems to feel area managers are essential as supervisors. However, if they mainly communicate instructions and receive information, could a functional equivalent be sought in information technology? The area manager position may be a relic of traditionality that includes high power distance and allocentrism-- i.e., the incumbent area managers are part of the in-group.

The conceptual implication for practice is to stimulate managers to look for functional equivalents to aspects of their traditionality or organizational culture that inhibit the innovation process. In the above case, the concept of area manager is supported by high power distance. The people who are area managers are supported by allocentrism; they are part of the in-group of middle

aged male executives who feel most positive about the company, according to the December 1991 employee opinion survey. The high power distance and allocentrism of the setting may blind the managers to conceivable functional equivalents to hierarchy such as the computer based alternative mentioned above.

#### Leadership of the Quality Council

It appears that the resistance to change was most evident in the quality councils in both sites. In Playa Negra it was ineffectual and in Bocagrande it had been coopted. Perhaps the proper strategy was that used by Packaging, Inc. They did not permit the general manager to attend meetings except to critique formal presentations. The second in command managed the quality council. This seemed to provide leadership, in that the second in command was in charge, but yet removed the most powerful figure (i.e., the general manager) from the discussions thereby freeing the quality council participants to engage themselves actively in a structured group discussion.

The conceptual implications for practice are to build off of the cultural and organizational contingencies. If high power distance is prominent, do not expect a quality council to assume a relatively autonomous role if the general manager is present, quiet

or not. On the other hand, do not expect relatively leaderless groups to function well either. Using the second in command to lead the quality council seems to both satisfy the need for leadership as well as allowing the quality council members to feel relatively free to express their views.

#### Functional Equivalence and Cross Functional Groups

As I have indicated previously, Playa Negra initially attempted to follow the conventional total quality management methodology and attempted cross functional teams. These teams succumbed to "turfism." Then they used functional teams, much like quality circles, but Armando realized that many organizational problems were of a cross functional nature. Therefore, he eventually decided to have respected managers lead the quality teams and allow them to choose their own members. Having respected managers lead quality action teams and allow them to choose their own team members is consistent with both high power distance and allocentrism, in that the leader is free to choose members from his or her in-group. Such an in-group may reflect personal loyalties rather than functional loyalties thereby permitting a cross functional approach to operate. This may be a way to avoid the resistance initially faced when cross

functional groups were imposed on participants who were not yet ready.

#### Limitations of the Present Research

Case studies typically suffer from a lack of generalizability; the present research does as well. The setting is fairly unique; there are only three long established economies of scale production facilities within LITEP, Inc., one of the largest exporters of LITEP in the world. However, economies of scale operations that dominate small rural communities are relatively common in the petroleum, mining, forestry, and agribusiness industries. The importance of establishing and maintaining a clear total quality management policy and data-based dialogue are probably conceptually relevant to such operations as well but the findings are not directly generalizable. One could read the present research and use it as part of a literature review for future studies.

The village-like, relatively closed environment created social situations that were more extreme than in other modern organizations in that the distinction between one's work and social roles was blurred. The intensity of the focus on work probably tended to accentuate one's perceptions. This was another limitation to generalizability but I find that extreme

circumstances are good research sites in that the researcher can more readily observe social phenomena.

#### Concluding Comment

In sum, we can conclude that Armando's policy deployment, based on a cognitive framework that considered the critical organizational and cultural contingencies, was important in countering the strong cultural pull of autocratic leadership. The clarity and consistency in total quality management training and quality action team activities fostered a more positive attitude among participants than non-participants. Where managerial opportunism was practiced, one could not attribute any differences in employee attitudes to total quality management training and participation in quality action teams. Opportunism created an ad hoc inconsistency that allowed capriciousness to manifest itself as autocratic behavior (e.g., Karl's coopting the quality council).

Data-based dialogue was effective in overcoming the tension inherent in hierarchy. The primary factor was the existing structure of interdependence and frequent interaction, within production units, between superiors and subordinates, based on data. Total quality management training also appeared to have contributed to



improved attitudes, as measured by the survey and the comments provided by the interviewees.

APPENDICES

- (1) Consent form
- (2) Questionnaire -- LITEP, Inc.
- (3) Scales not used from Sabiers-Pasmore survey
- (4) Reliabilities and creation of variables
- (5) Interview protocol

## (1) CONSENT FORM

I understand that the following questionnaire will be used to gather data for research purposes and to provide general information to management and union leaders about the organization. I understand that all of the specific information I provide will remain strictly confidential and will be available only to Asbjorn Osland, for use in his research needed to complete the requirements for a doctorate in organizational behavior at Case Western Reserve University in Cleveland, Ohio. Only aggregated information, based on the statistical analysis of the attached questionnaire along with all the others of other participants, will be described in the thesis that is to be published and report written; in no way will any published document or report reflect any specific comments traceable to me as an individual.

I understand that I do not have to participate in this research and am doing so of my free will.

Thank you for your cooperation.

Name  
(printed): \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

## (2) Questionnaire -- LITEP, Inc.

Please indicate with an "x" the department you work in:

- Production  
 Controller's office  
 Materials  
 Engineering  
 Legal  
 Transportation  
 Exportation  
 Quality control  
 Manager's office  
 Packaging  
 Purchased product  
 Labor relations

Years of service:

- 0-5  
 6-10  
 11-15  
 16-20  
 20 or more

Age:

- 18-25  
 26-35  
 36-45  
 45 or more

Sex:

- Female  
 Male

Salary grade/job level:

- JL 3-5  
 JL 6-8  
 JL 9-14  
 SG 20-24  
 SG 25-35  
 SG 36 or higher

How many persons do you supervise in your work area?

Please include those supervised indirectly and directly, by you, as well as union or non-union.

- 0  
 1-10  
 11-50  
 51-100  
 101 or more

Please indicate whether or not your parents or grandparents worked for the company by marking an "X" in the appropriate space that follows:

My parents worked for the company Yes  No   
 My grandparents worked for the company Yes  No

## (2) Questionnaire -- continued

## Instructions for survey:

1. Each of the statements in this survey describes some characteristics of your job, department, or organization.
2. Please respond to all the statements by writing a 1,2,3,4 or 5 on the line next to each statement. Sometimes the "1" means "Never" but sometimes the "1" may mean "Strongly Disagree." To be sure, please read the instructions at the top of each page. There are no right or wrong answers. Please just give your honest opinion.
3. Please answer all the questions, even if you think they may not apply to you. If you are uncertain about the answer, please make your best guess. Please do not leave any empty lines.
4. Take as long as you need to finish. There is no time limit.
5. Your answers are confidential. You will not be personally identified or singled out in any way for what you say here.

Quality orientation: Please respond to the statements by writing a 1, 2, 3, 4, or 5 on the line immediately before the statement.

1= I strongly disagree

2= I disagree

3= I have neutral feelings; I neither agree nor disagree.

4= I agree

5= I strongly agree

1. \_\_\_\_\_ I do all the basic quality control tests necessary to check my own work.
2. \_\_\_\_\_ I know how to use statistics to judge the quality of my work.
3. \_\_\_\_\_ I am rewarded for doing high quality work.
4. \_\_\_\_\_ Within the past three months some of the ways I do my work have been changed, specifically to improve quality.
5. \_\_\_\_\_ Top management talks a lot about improving quality, but it is really just another fad.

## (2) Questionnaire -- continued

Skill development: Please respond to the statements below by writing a 1,2,3,4, or 5 on the line immediately before the statement.

1= Almost never 2= Sometimes 3= About half the time  
4= Often 5= Almost always

6. \_\_\_\_\_ I am allowed to work to my full potential.  
7. \_\_\_\_\_ This organization helps me get the skills I need to get ahead.  
8. \_\_\_\_\_ When I learn new skills this organization rewards me in some way.  
9. \_\_\_\_\_ Time is set aside for me to learn about new technological developments that might help me do my job better.  
10. \_\_\_\_\_ I have attended a technical skills training session within the past year.  
(Note: 1=False; 2=True)

## Inclusion:

11. \_\_\_\_\_ I meet with people from several levels of the organization.  
12. \_\_\_\_\_ I sometimes attend meetings with people from other departments.  
13. \_\_\_\_\_ Information about the financial side of the organization is shared with me.  
14. \_\_\_\_\_ Information about my department's objectives is shared with me.  
15. \_\_\_\_\_ I know what information management uses to make decisions.  
16. \_\_\_\_\_ I think that my supervisors listen to me when I have a suggestion.

## Support for innovation:

17. \_\_\_\_\_ In my department good ideas are put into practice.  
18. \_\_\_\_\_ I am encouraged to try new ways of doing things, even if they might not work out.  
19. \_\_\_\_\_ When I try new ways of doing things and fail I am encouraged to try again.  
20. \_\_\_\_\_ When I come up with new ideas I am rewarded in a meaningful way.

## Facilitative leadership:

21. \_\_\_\_\_ My supervisors regularly let me know how well I am doing.  
22. \_\_\_\_\_ My supervisors explain clearly what needs to be done.  
23. \_\_\_\_\_ My supervisors let me figure out the best way to do my job.  
24. \_\_\_\_\_ My supervisors give me guidance and help rather than orders.

## (2) Questionnaire -- continued

## Cooperation:

25. \_\_\_\_\_ My co-workers help me solve problems if I need it.
26. \_\_\_\_\_ Others go beyond their normal duties to help me when I need it.
27. \_\_\_\_\_ My co-workers openly share their technical knowledge with me.

## Upward influence:

28. \_\_\_\_\_ My supervisor listens when I volunteer my opinion on important matters.
29. \_\_\_\_\_ My supervisor asks my advice on important matters.
30. \_\_\_\_\_ I am consulted when others want to change the way I do my job.

## Pride in association:

31. \_\_\_\_\_ My coworkers seem to feel personally responsible for how well this organization does.
32. \_\_\_\_\_ My coworkers do more than their share to help this organization succeed.
33. \_\_\_\_\_ I am proud of the product this organization exports.
34. \_\_\_\_\_ I am embarrassed to tell people what organization I work for.
35. \_\_\_\_\_ I feel bad and unhappy when I discover that I have performed poorly on my job.

## Technical agility:

36. \_\_\_\_\_ I am trained to do jobs other than my own in my own department.
37. \_\_\_\_\_ I am trained to do jobs other than my own in other departments.

## Interface with customer:

38. \_\_\_\_\_ If an internal customer is not satisfied with some of the work I have done, I hear about it.
39. \_\_\_\_\_ I talk directly to internal customers to find out how to serve them better.
40. \_\_\_\_\_ I know the standards external customers use to judge the products shipped from our division.
41. \_\_\_\_\_ I treat the people who complete the work I begin as if they are my customers.
42. \_\_\_\_\_ Time is set aside for me to learn more about what goes on in other parts of the organization.
43. \_\_\_\_\_ I know what our competitors are up to.
44. \_\_\_\_\_ I have no control over the quality of the supplies, parts, or materials I use; I have to use what they give me.

## (2) Questionnaire -- continued

## Activity feedback:

45. \_\_\_\_\_ When I do a good job I hear about it.  
 46. \_\_\_\_\_ When I do a bad job, I hear about it.  
 47. \_\_\_\_\_ People outside my department tell me how the quality of my work affects them.  
 48. \_\_\_\_\_ People in my department tell me how the quality of my work affects them.  
 49. \_\_\_\_\_ I speak up and tell my coworkers how the quality of their work affects me.

## Efficacy in groups: (I included these questions which were not part of the Sabiers-Pasmore questionnaire)

- \_\_\_\_\_ 50. When I work with others, we tend to complain to one another.  
 \_\_\_\_\_ 51. When my coworkers and I are asked to do something difficult, we tend to point out the reasons why it will be difficult to accomplish.  
 \_\_\_\_\_ 52. I find that my coworkers encourage me to do more than I could alone.  
 \_\_\_\_\_ 53. Working in a group is more productive than working alone.  
 \_\_\_\_\_ 54. Working in a group is more fun than working alone.  
 \_\_\_\_\_ 55. Working in groups has helped me speak more frankly to my coworkers.  
 \_\_\_\_\_ 56. When I meet with my coworkers after work, we complain about work.  
 \_\_\_\_\_ 57. When I meet with my coworkers after work, we try to think about how to improve things at work.

## Positive outlook toward TQM process: (not part of the Sabiers-Pasmore questionnaire)

- \_\_\_\_\_ 58. When I talk to those who are involved in the TQM groups, I find that they seem enthusiastic about TQM.  
 \_\_\_\_\_ 59. I often hear my coworkers say that they would like to be involved in a TQM group.  
 \_\_\_\_\_ 60. I believe that because of the TQM groups we will be more and more involved in the decision-making process.  
 \_\_\_\_\_ 61. I have heard many TQM group members say that TQM is a waste of time.  
 \_\_\_\_\_ 62. I think the TQM groups should be given more responsibility.  
 \_\_\_\_\_ 63. I think the TQM groups have gone about as far as they can.  
 \_\_\_\_\_ 64. The department heads support what the TQM groups are doing.  
 \_\_\_\_\_ 65. I'd rather not have to work with a TQM group.



## (2) Questionnaire -- continued

Positive view of one's superior: (These questions came from one of the factors developed in the employee opinion survey of 12/91 administered in Playa Negra)

\_\_\_\_ 66. My boss takes into account my suggestions for improvement and takes action.

\_\_\_\_ 67. The support received from my boss is appropriate.

\_\_\_\_ 68. Our bosses give us support in our professional development.

\_\_\_\_ 69. I feel free to discuss my work problems with my boss.

\_\_\_\_ 70. My bosses are putting TQM into practice.

## (2) Questionnaire -- continued

Organizational commitment (Mowday, Steers, & Porter, 1979): Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working (company name), please indicate the degree of your agreement or disagreement with each statement by writing the appropriate number, in the space provided to the left of the statement, that corresponds to one of the following seven alternatives:

- \_\_\_\_\_ 1= strongly disagree
- \_\_\_\_\_ 2= moderately disagree
- \_\_\_\_\_ 3= slightly disagree
- \_\_\_\_\_ 4= neither disagree nor agree
- \_\_\_\_\_ 5= slightly agree
- \_\_\_\_\_ 6= moderately agree
- \_\_\_\_\_ 7= strongly agree

- \_\_\_\_\_ 1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
- \_\_\_\_\_ 2. I talk up this organization to my friends as a great organization to work for.
- \_\_\_\_\_ 3. I feel very little loyalty to this organization.
- \_\_\_\_\_ 4. I would accept almost any type of job assignment in order to keep working for this organization.
- \_\_\_\_\_ 5. I find that my values and the organization's values are very similar.
- \_\_\_\_\_ 6. I am proud to tell others that I am part of this organization.
- \_\_\_\_\_ 7. I could just as well be working for a different organization as long as the type of work was similar.
- \_\_\_\_\_ 8. This organization really inspires the very best in me in the way of job performance.
- \_\_\_\_\_ 9. It would take very little change in my present circumstances to cause me to leave this organization.
- \_\_\_\_\_ 10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
- \_\_\_\_\_ 11. There's not too much to be gained by sticking with this organization indefinitely.
- \_\_\_\_\_ 12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.
- \_\_\_\_\_ 13. I really care about the fate of this organization.
- \_\_\_\_\_ 14. For me this is the best of all possible organizations for which to work.
- \_\_\_\_\_ 15. Deciding to work for this organization was a definite mistake on my part.

## (3) Scales not used in LITEP questionnaire

I decided not to use the following scales and questions from the Sabiers-Pasmore survey because I had to keep the survey to a reasonable length and the particular scales are either less appropriate than others or suffer from what I perceived as methodological problems, given the unique setting. Those not used were as follows:

Technical efficacy: This scale includes references to equipment that not all the respondents used in Playa Negra. The scale is made up of the following questions:

1. \_\_\_ The machines and equipment I use are exactly what I need to turn out high quality work.
2. \_\_\_ The machines and equipment I use are exactly what I need to turn out work as fast as possible.
3. \_\_\_ The machines and equipment I use make it easy for me to work with others as part of a team.
4. \_\_\_ The layout of the building and equipment allows a smooth flow of work through my department.

Task challenge: This scale includes references to equipment that not all the respondents used in Playa Negra. The scale is made up of the following questions:

1. \_\_\_ I need to have many skills to do my job well.
2. \_\_\_ My job takes a long time to learn.
3. \_\_\_ My job requires a great deal of thought.
4. \_\_\_ My job is monotonous and boring.
5. \_\_\_ I must frequently deal with other people as an essential part of my job.
6. \_\_\_ My job requires me to operate mechanical equipment or use hand tools.
7. \_\_\_ My job requires me to work at a personal computer or computer terminal.
8. \_\_\_ My job consists largely in doing paper work.

Task significance: This scale includes self-evaluative questions that Latin respondents in Playa Negra tended to rate uniformly high, thereby eliminating variance. I base this conclusion on an attitude survey that was conducted in Playa Negra where the self-evaluative questions almost uniformly had extremely high means and low standard deviations. The scale is made up of the following questions:

1. \_\_\_ My job is worthy of a great deal of respect.
2. \_\_\_ My job is very important in the broader scheme of things.
3. \_\_\_ The outcome of my work affects other people in important ways.

(3) Scales not used in LITEP questionnaire -- continued  
Physical health and safety: This scale was not asked in LITEP, Inc. because the questionnaire was very long.

1. \_\_\_ I could be physically injured doing my job.
2. \_\_\_ My long-term health is in danger because of my working conditions.
3. \_\_\_ My job requires me to repeat the same physical movements over and over.
4. \_\_\_ My work station is uncomfortable.
5. \_\_\_ There are fumes, chemicals, dust or smoke in the air where I work.
6. \_\_\_ Safety problems at my work station are corrected right away.
7. \_\_\_ The noise at my work station is deafening.

Setting induced stress: This scale was not asked in LITEP, Inc. because the questionnaire was very long.

1. \_\_\_ I can decide for myself when to take a short break.
2. \_\_\_ Many things about this job make me angry.
3. \_\_\_ My workload is overwhelming.
4. \_\_\_ There is some place here at work where I can go when I need a few minutes of private time to myself.
5. \_\_\_ I can make a phone call in privacy when I feel the need to.
6. \_\_\_ How fast I work is determined by a machine.
7. \_\_\_ Supervisors check to see how fast I am working.
8. \_\_\_ I have to look busy at my job even when I ave nothing to do.
9. \_\_\_ My work is stressful.

Tangible rewards: This scale was not asked because the employees had no say over their pay or that of their co-workers. They did not share in profits either.

1. \_\_\_ The fringe benefits I get are just what I need.
2. \_\_\_ Time-off policies are flexible enough to let me take care of my personal and family needs.
3. \_\_\_ I am paid fairly for the work I do.
4. \_\_\_ My pay and other rewards are based on the quality of my work, not the quantity.
5. \_\_\_ My pay and other rewards are based on how well my whole team or department functions.
6. \_\_\_ I have a chance to share in the profits of the organization.
7. \_\_\_ I have influence over my co-workers' pay and other rewards.
8. \_\_\_ This organization is committed to providing job security for its employees.

## (3) Scales not used in LITEP questionnaire -- continued

Requisite variety: This scale was not used because the respondents tend to be homogeneous in Playa Negra and diversity related concerns are not as relevant in Morazan as in the U.S.

1. \_\_\_ The people I work closely with have values and ideas different from mine.
2. \_\_\_ The people I work closely with are men.
3. \_\_\_ I can dress how I like at work.
4. \_\_\_ The people I work closely with are of different races.

General satisfaction: I chose to use the scale developed by Mowday, Steers, and Porter (1979) instead as it is more specifically focused on organizational commitment, which was an area of special interest to me when I began the research.

1. \_\_\_ Generally speaking, I am satisfied with my job.
2. \_\_\_ I frequently think of quitting my job.
3. \_\_\_ I enjoy coming to work here.

Joint optimization: The questions that make up this scale refer to equipment and technology, an area that was not a priority in my research.

1. \_\_\_ Technology and people are considered to be of equal importance in my department.
2. \_\_\_ I perform routine maintenance on the equipment I work with.
3. \_\_\_ I can keep whatever machines and equipment I use working well without help.
5. \_\_\_ The tools, equipment or machines I work with are "user-friendly."

The following question is included in the Skill Development scale but I did not ask it in LITEP, Inc. because all the salaried employees attended a communications workshop:

6. \_\_\_ I have attended a human relations skills training session within the past year (1=False, 2=True).

The following questions are included in the Upward Influence scale but I did not ask them in LITEP, Inc. because this level of participation was not present in Playa Negra:

1. \_\_\_ I have a hand in picking my new supervisors.
2. \_\_\_ I have a hand in evaluating my supervisors.

## (3) Scales not used in LITEP questionnaire -- continued

The following questions are included in the Technical Agility scale but I did not ask them in LITEP, Inc. because the questions seemed inappropriate to the situation:

1. \_\_\_\_ In my department we can easily change our way of doing things when we need to meet new customer demands.
2. \_\_\_\_ The machines and equipment I use can be used to produce many different kinds of things.

The following question is included in the Inclusion scale but I did not ask it in LITEP, Inc. because management does not treat employees as partners:

6. \_\_\_\_ Management treats me like a partner in the business.

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## (3) Reliabilities and creation of variables

I tested the reliability of the variables that had previously been used in other research and retained only those variables that had reliabilities over .6666. The reliability for each retained variable is entered in parentheses after the variable name. The questions that make up each variable are listed below the variable in the following list:

## Inclusion (.7309):

11. \_\_\_\_\_ I meet with people from several levels of the organization.
12. \_\_\_\_\_ I sometimes attend meetings with people from other departments.
13. \_\_\_\_\_ Information about the financial side of the organization is shared with me.
14. \_\_\_\_\_ Information about my department's objectives is shared with me.
15. \_\_\_\_\_ I know what information management uses to make decisions.
16. \_\_\_\_\_ I think that my supervisors listen to me when I have a suggestion.

## Support for innovation (.8094):

17. \_\_\_\_\_ In my department good ideas are put into practice.
18. \_\_\_\_\_ I am encouraged to try new ways of doing things, even if they might not work out.
19. \_\_\_\_\_ When I try new ways of doing things and fail I am encouraged to try again.
20. \_\_\_\_\_ When I come up with new ideas I am rewarded in a meaningful way.

## Facilitative leadership (.7999):

21. \_\_\_\_\_ My supervisors regularly let me know how well I am doing.
22. \_\_\_\_\_ My supervisors explain clearly what needs to be done.
23. \_\_\_\_\_ My supervisors let me figure out the best way to do my job.
24. \_\_\_\_\_ My supervisors give me guidance and help rather than orders.

## Cooperation (.7578):

25. \_\_\_\_\_ My co-workers help me solve problems if I need it.
26. \_\_\_\_\_ Others go beyond their normal duties to help me when I need it.
27. \_\_\_\_\_ My co-workers openly share their technical knowledge with me.

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## (3) Reliabilities and creation of variables -- continued

## Upward influence (.7542):

- 28. \_\_\_\_\_ My supervisor listens when I volunteer my opinion on important matters.
- 29. \_\_\_\_\_ My supervisor asks my advice on important matters.
- 30. \_\_\_\_\_ I am consulted when others want to change the way I do my job.

## Technical agility (.6846):

- 36. \_\_\_\_\_ I am trained to do jobs other than my own in my own department.
- 37. \_\_\_\_\_ I am trained to do jobs other than my own in other departments.

## Activity feedback (.7420):

- 47. \_\_\_\_\_ People outside my department tell me how the quality of my work affects them.
- 48. \_\_\_\_\_ People in my department tell me how the quality of my work affects them.
- 49. \_\_\_\_\_ I speak up and tell my coworkers how the quality of their work affects me.

## Positive view of one's superior (.9140):

- 66. \_\_\_\_\_ My boss takes into account my suggestions for improvement and takes action.
- 67. \_\_\_\_\_ The support I receive from my boss is adequate.
- 68. \_\_\_\_\_ Our bosses give us support in our professional development.
- 69. \_\_\_\_\_ I feel free to discuss my work problems with my boss.
- 70. \_\_\_\_\_ My boss is interested in listening to my ideas to make the company a better place to work.



## (3) Reliabilities and creation of variables -- continued

## Organizational commitment (.7597):

- \_\_\_\_\_ 1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
- \_\_\_\_\_ 2. I talk up this organization to my friends as a great organization to work for.
- \_\_\_\_\_ 3. I feel very little loyalty to this organization.
- \_\_\_\_\_ 4. I would accept almost any type of job assignment in order to keep working for this organization.
- \_\_\_\_\_ 5. I find that my values and the organization's values are very similar.
- \_\_\_\_\_ 6. I am proud to tell others that I am part of this organization.
- \_\_\_\_\_ 7. I could just as well be working for a different organization as long as the type of work was similar.
- \_\_\_\_\_ 8. This organization really inspires the very best in me in the way of job performance.
- \_\_\_\_\_ 9. It would take very little change in my present circumstances to cause me to leave this organization.
- \_\_\_\_\_ 10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
- \_\_\_\_\_ 11. There's not too much to be gained by sticking with this organization indefinitely.
- \_\_\_\_\_ 12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.
- \_\_\_\_\_ 13. I really care about the fate of this organization.
- \_\_\_\_\_ 14. For me this is the best of all possible organizations for which to work.
- \_\_\_\_\_ 15. Deciding to work for this organization was a definite mistake on my part.

## (3) Reliabilities and creation of variables -- continued

The following variables were created through factor analysis with a varimax rotation:

## Group efficacy (.7469):

- 53. \_\_\_\_\_ Working in a group is more productive than working alone.
- 54. \_\_\_\_\_ Working in a group is more fun than working alone.
- 55. \_\_\_\_\_ Working in groups has helped me speak more frankly to my coworkers.

## Positive attitude toward TQM (.7221):

- 58. \_\_\_\_\_ When I talk to those who are involved in the total quality groups, I find that they seem enthusiastic about total quality.
- 59. \_\_\_\_\_ I often hear my coworkers say that they would like to be involved in a total quality group.
- 60. \_\_\_\_\_ I believe that because of the total quality groups we will be more and more involved in the decision-making process.

## (4) Interview protocol

I began with a warm up question where I asked them what they did. I then asked the following question:

"How often does your supervisor speak to you in the course of the day? When does he speak with you and what does he say? Please give me some examples."

The purpose of this question was to understand the frequency and content of the interaction. Generally speaking, the collaborative problem solving of the data-based dialogue would have required relatively frequent contact.

I then asked about the innovation process through the following question:

"Tell me about how new ideas are put into practice in your department. Who develops the ideas? Give me a few examples. Please think of times when you determined a better way to do something. Tell me about them -- when did you tell your supervisor, how did he respond, and what happened next?"

The purpose of the data-based dialogue within total quality management was continuous improvement. If the participants of the data based dialogue were to be effective, the innovation process had to be supported.

The same was true of quality; therefore I asked:

"Tell me about quality in your department and how you find out if what you do is meeting the needs of the people who receive your work."

## (4) Interview protocol -- continued

In order to foster conditions propitious for the data-based dialogue, subordinates would have to feel that support was available from one's superior when needed.

Hence, I asked those interviewed the following question:

"Please tell me of a few examples of when you needed support from your supervisor. What happened?"

A related question followed; I asked:

"When you have a question regarding how to do something or solve a problem in your job, who do you talk to?"

Given the strategic importance of low cost production, cost information was a critical foundation for the data-based dialogue. I therefore asked about the respondent's knowledge of costs.

"Do you know how your work impacts costs? Do you know what the departmental objectives are and how you contribute to them? Do you know what information your superiors need to make decisions? When do they ask for it? How do you usually present it?"

I also wanted to inquire about the training programs to determine if the respondents felt the training had an impact. I asked the following questions:

"Please tell me about any training programs you've attended recently, say within the past year. Did your boss attend as well? What has been the impact in your work? Can you give me a few examples?"

## (4) Interview protocol -- continued

(For total quality management interviewees) "Tell me about your involvement in total quality management. What are the meetings like? What do you discuss? What have you worked on? Have you presented anything to your superiors or the quality council? If so, how did it go -- how were your suggestions received? Have you observed any impact from total quality management either in the way you work together, how your boss acts and so forth?"

(For non-total quality management interviewees) "Do you know of anyone in a total quality management group? Have you spoken with him or her? What have they told you about total quality management? Have you seen any impact? Can you give me some examples? Do you have any observations about total quality management?"

To give the respondents an opportunity to express what they felt was most important about their work, I asked about critical incidents (Flanegan, 1954) and "magic wishes" to improve the supervisory-subordinate relationship:

"Please think of some situations where you felt most proud in your work. What led up to it? What did you do? Who worked with you and what did they do? What was the outcome?"

"If you had three magic wishes to improve the relationship between supervisors and subordinates, what would they be?"

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